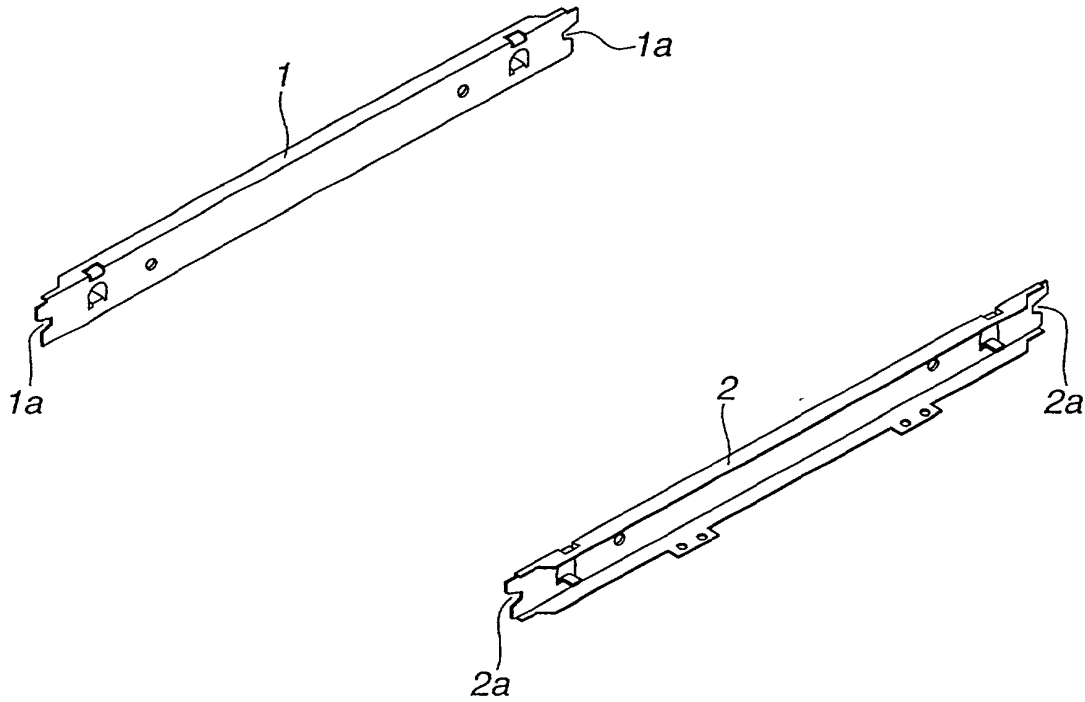


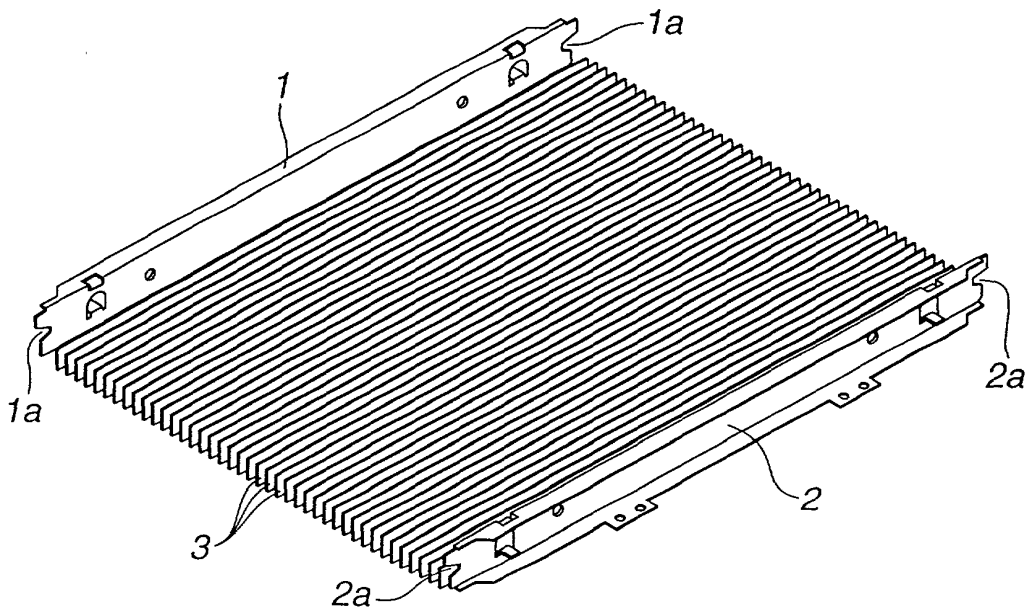
Title: METHOD OF  
MANUFACTURING HEAT  
EXCHANGER

Inventor(s): Hiroshi CHIKUMA et al.  
Docket No.: 040679-1425

**FIG.1A**



**FIG.1B**

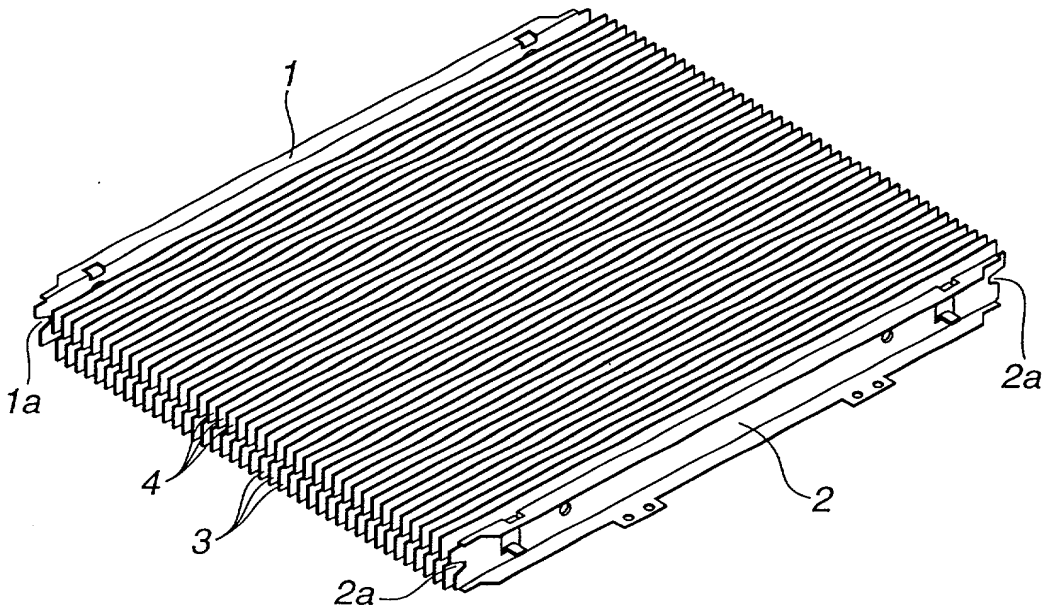


Title: METHOD OF  
MANUFACTURING HEAT  
EXCHANGER

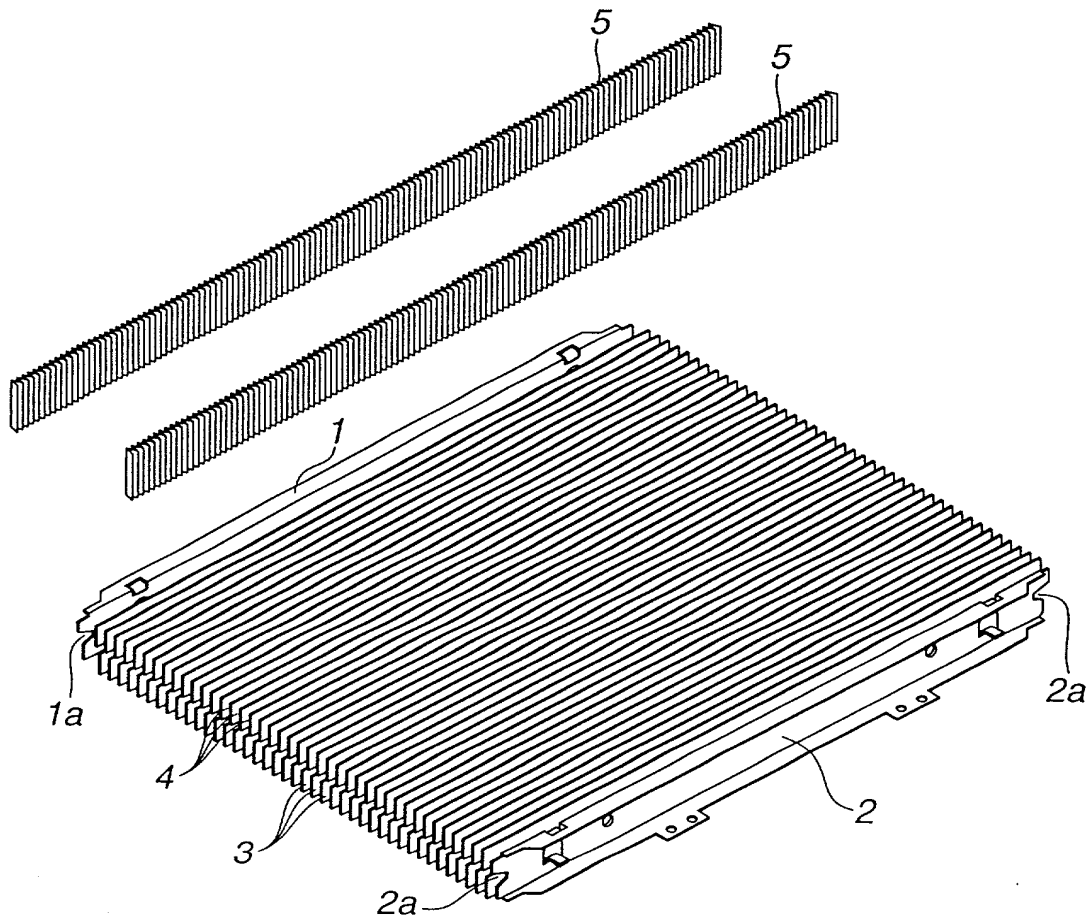
Inventor(s): Hiroshi CHIKUMA et al.

Docket No.: 040679-1425

**FIG.2A**



**FIG.2B**



Title: METHOD OF  
MANUFACTURING HEAT  
EXCHANGER

Inventor(s): Hiroshi CHIKUMA et al.  
Docket No.: 040679-1425

FIG.3

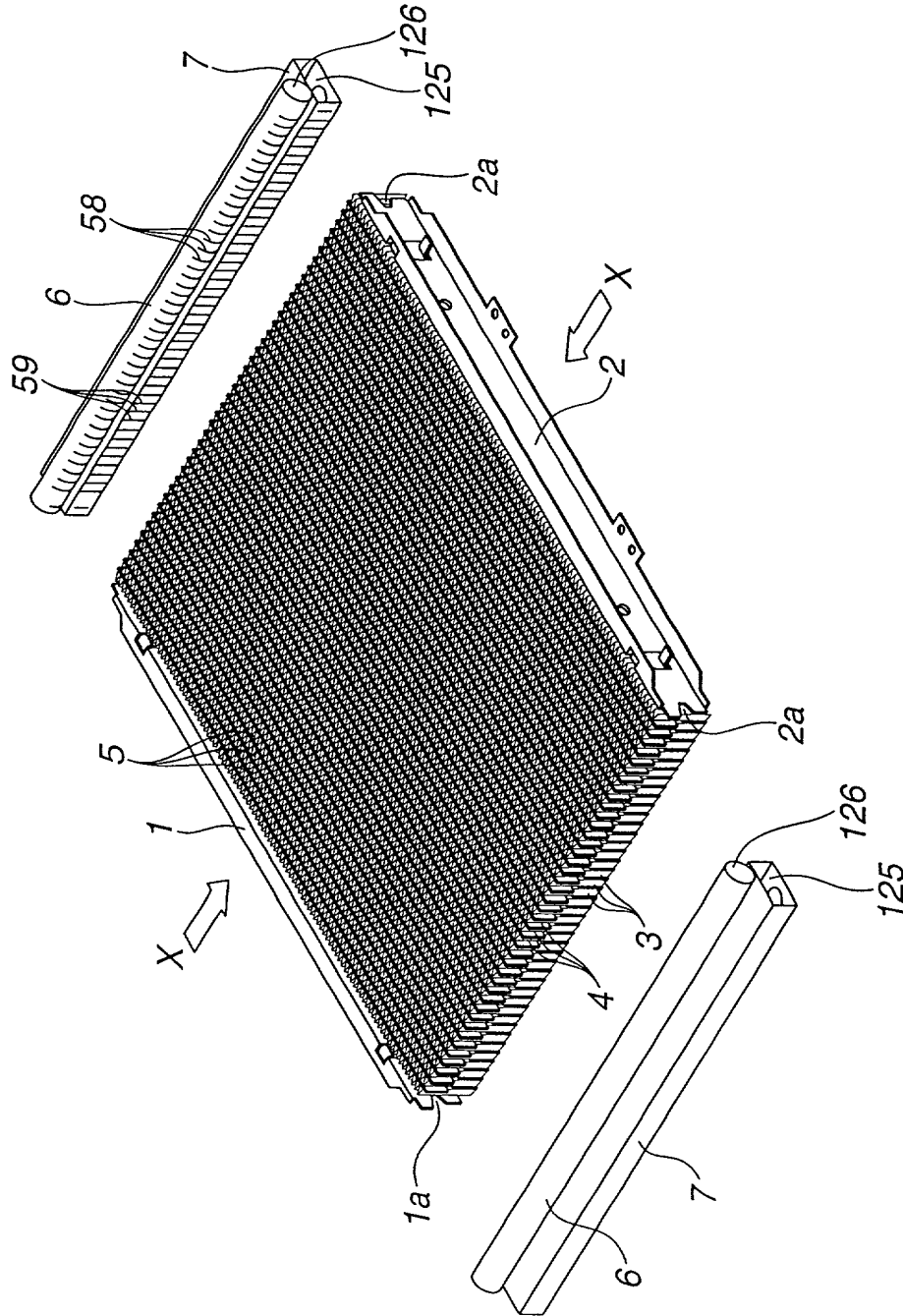
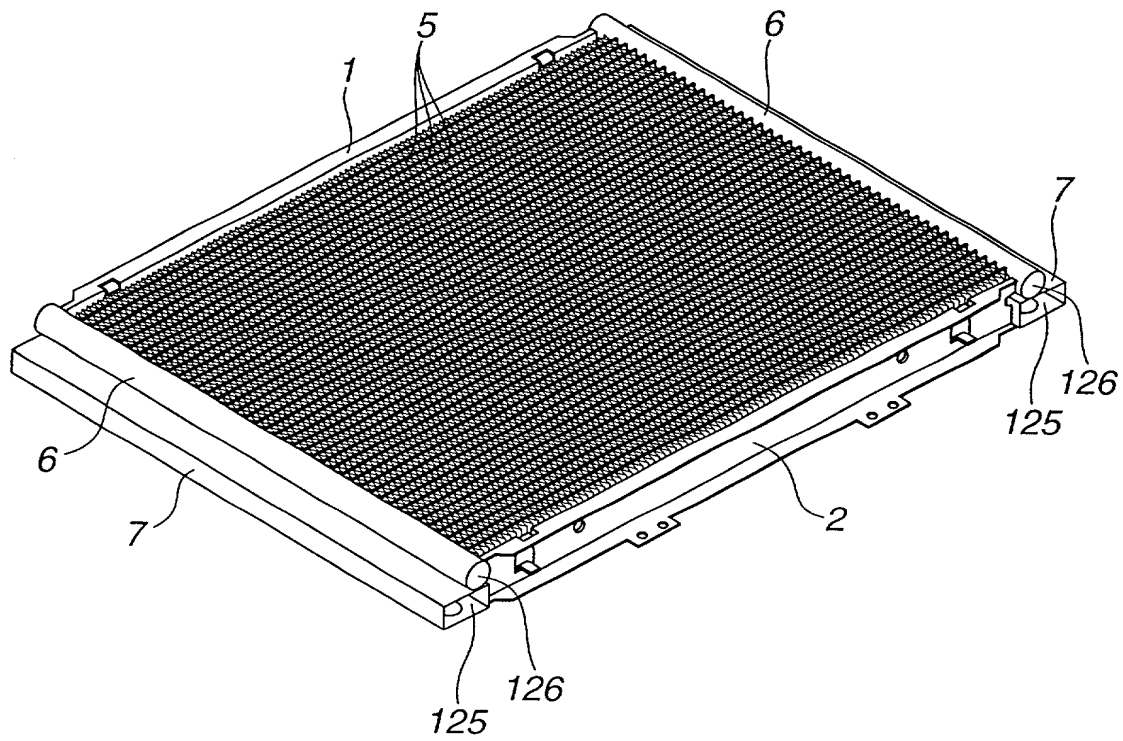
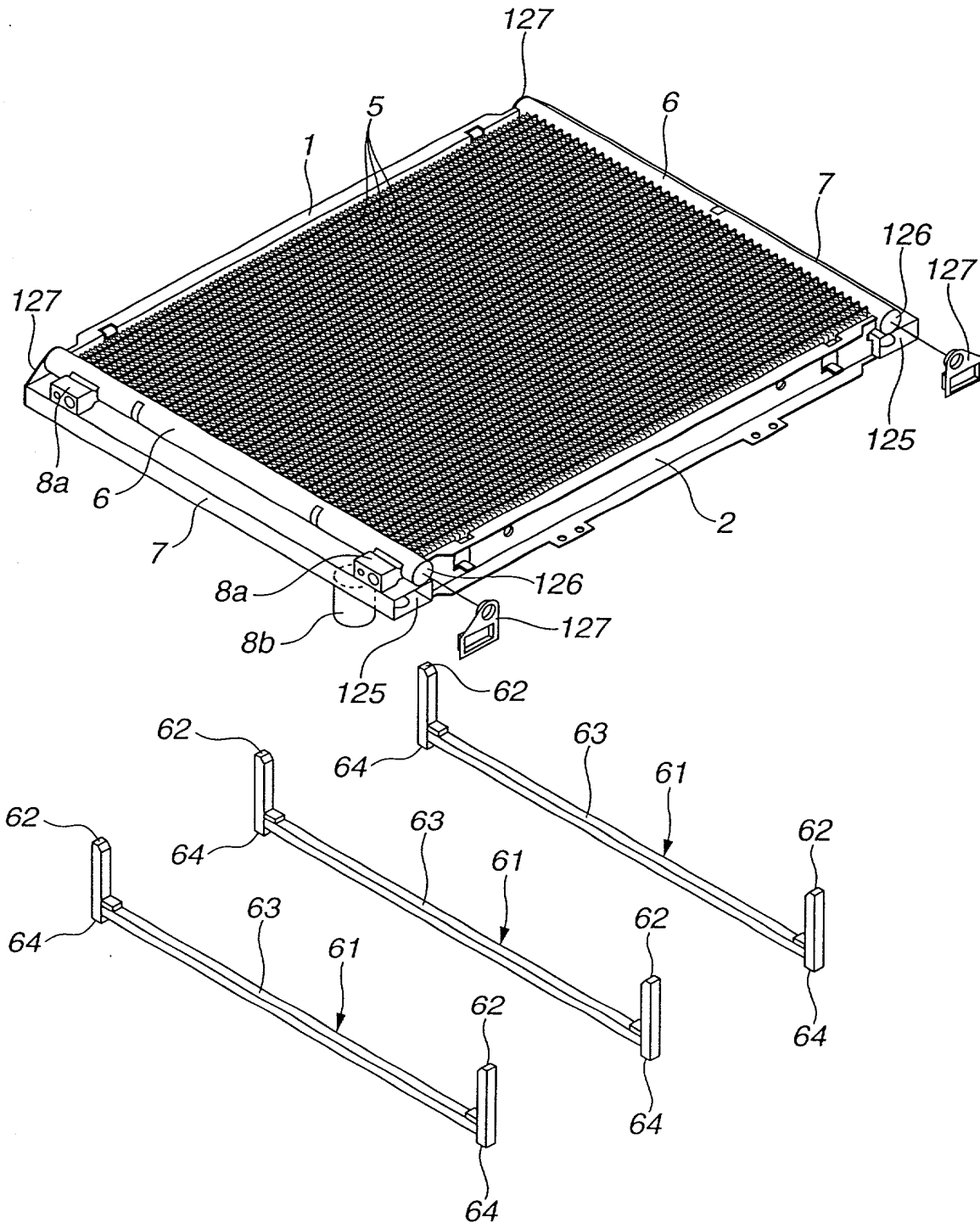


FIG.4



**FIG.5**

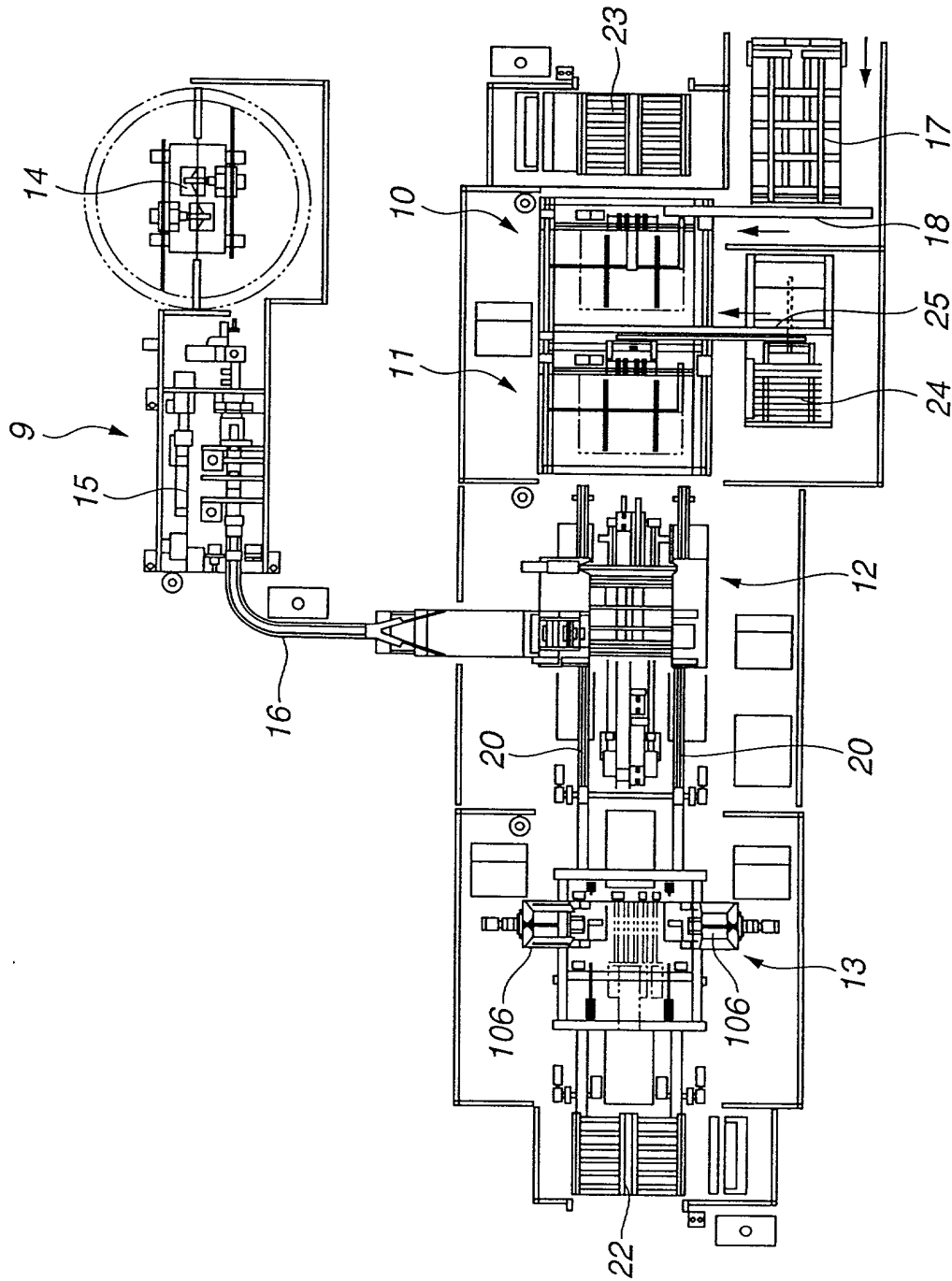


Title: METHOD OF  
MANUFACTURING HEAT  
EXCHANGER

Inventor(s): Hiroshi CHIKUMA et al.

Docket No.: 040679-1425

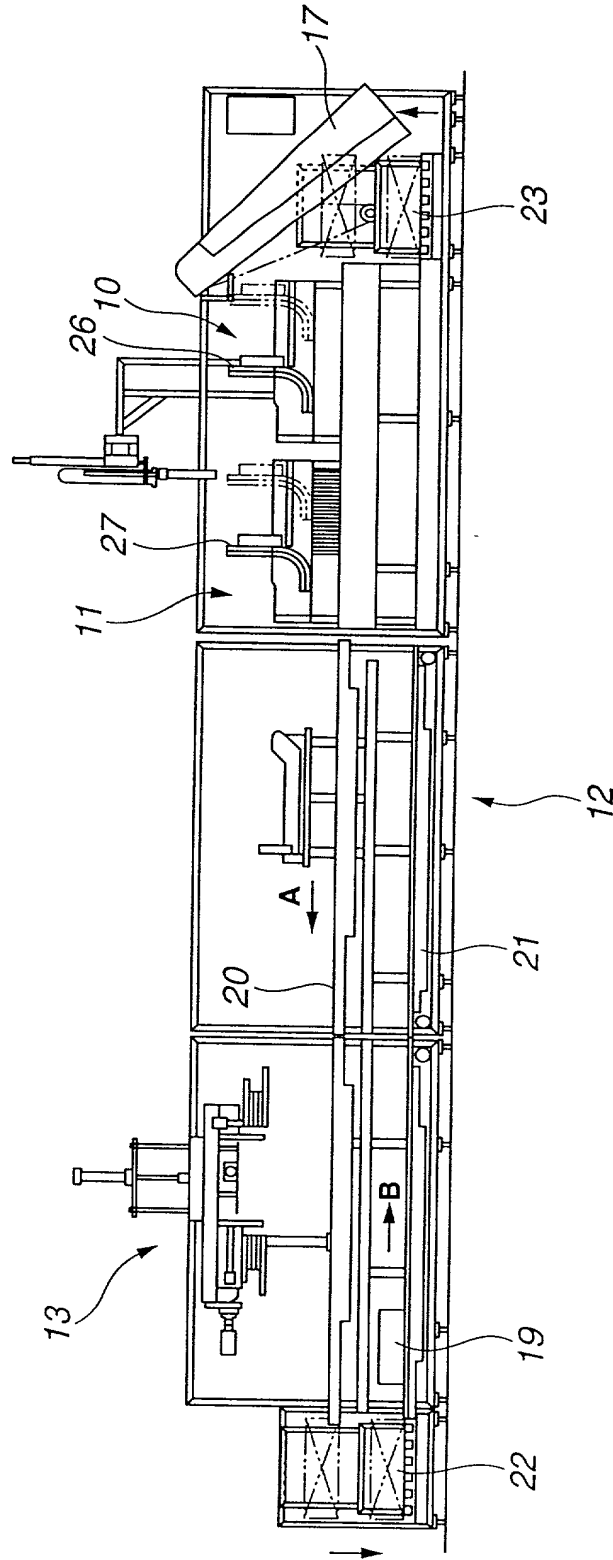
FIG.6



Title: METHOD OF  
MANUFACTURING HEAT  
EXCHANGER

Inventor(s): Hiroshi CHIKUMA et al.  
Docket No.: 040679-1425

FIG.7

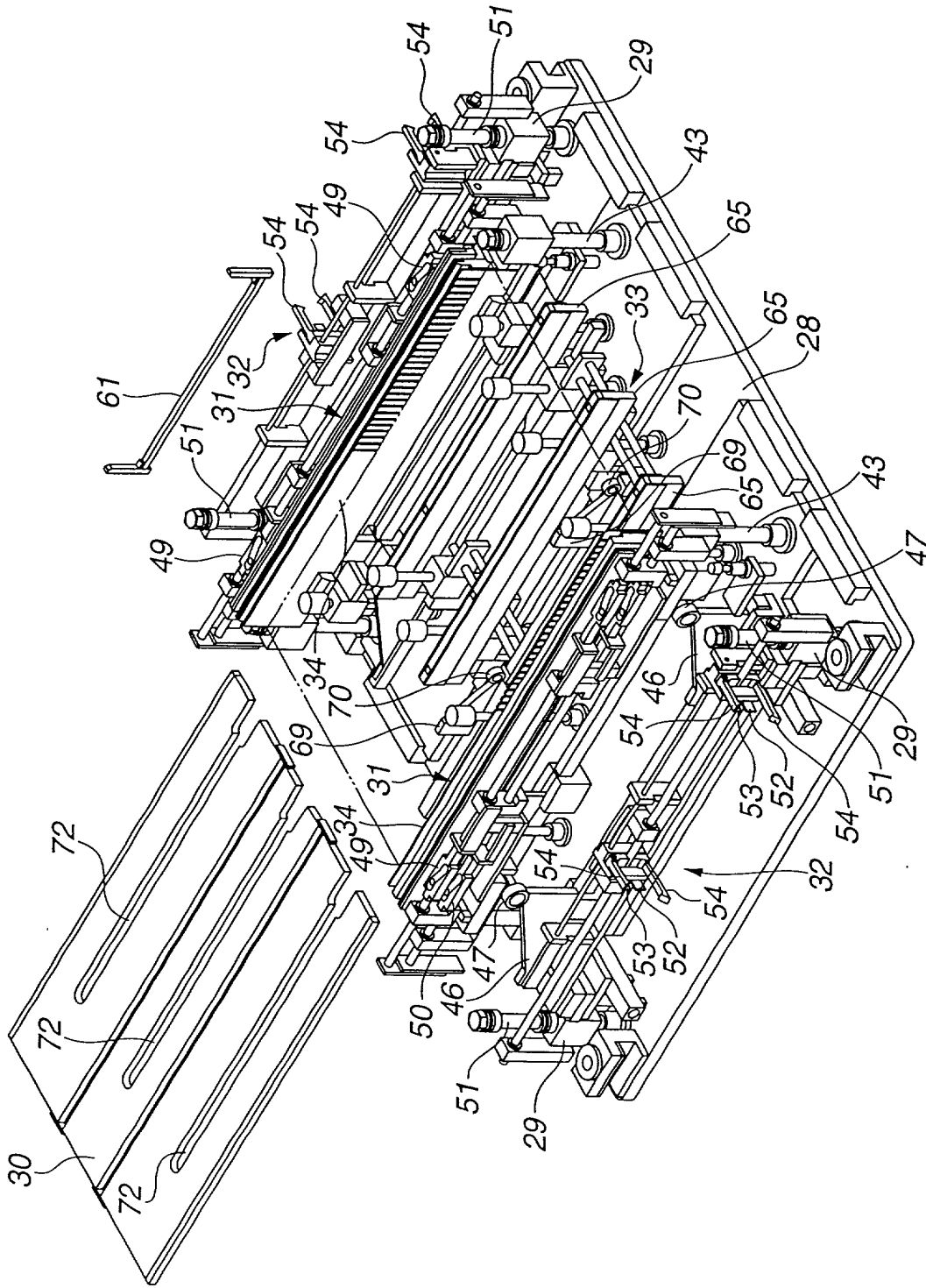


Title: METHOD OF  
MANUFACTURING HEAT  
EXCHANGER

Inventor(s): Hiroshi CHIKUMA et al.

Docket No.: 040679-1425

FIG.8



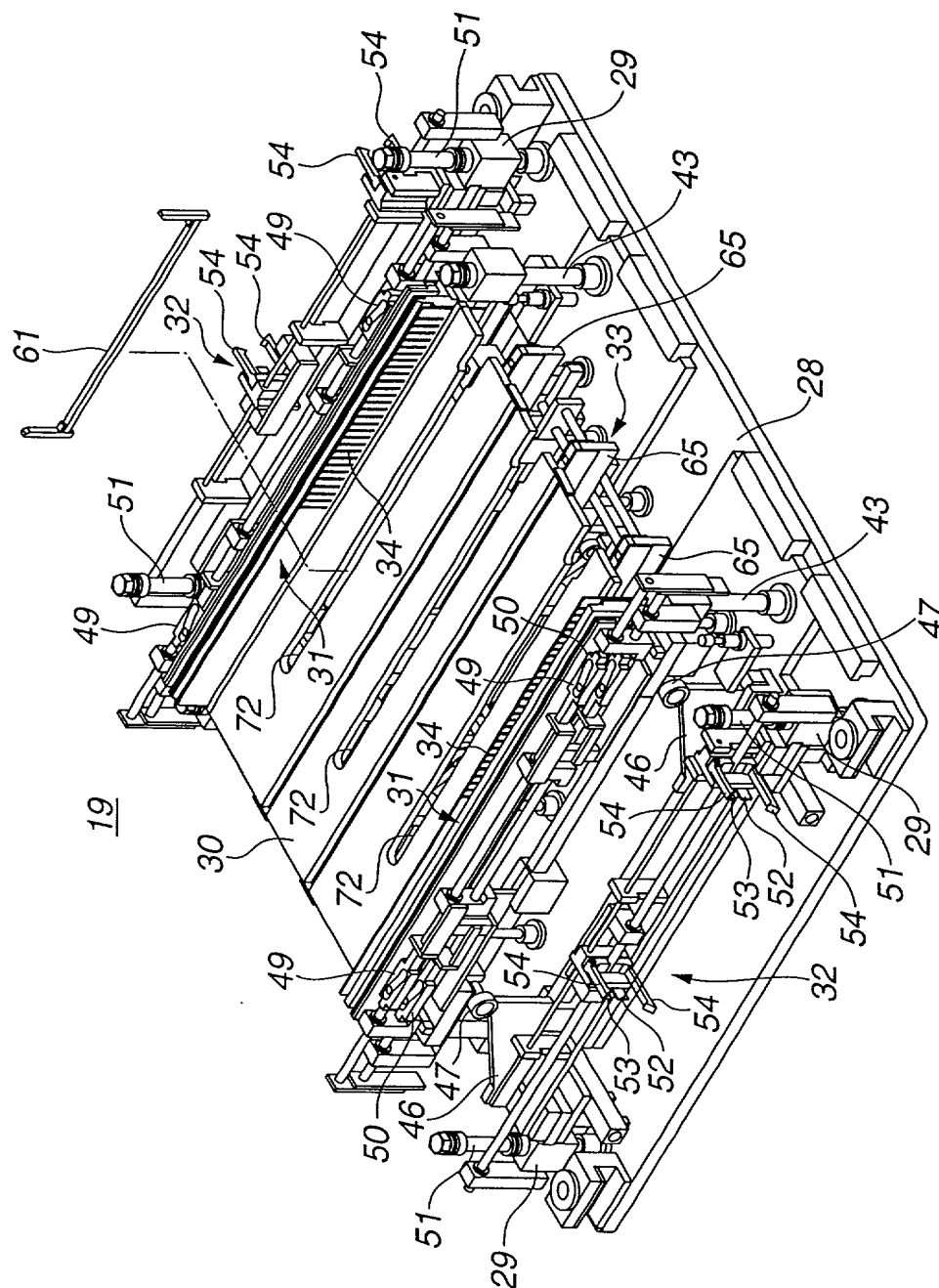


Inventor(s): Hiroshi CHIKUMA et al.  
Docket No.: 040679-1425

Inventor(s): Hiroshi CHIKUMA et al.

Docket No.: 040679-1425

**FIG. 9**

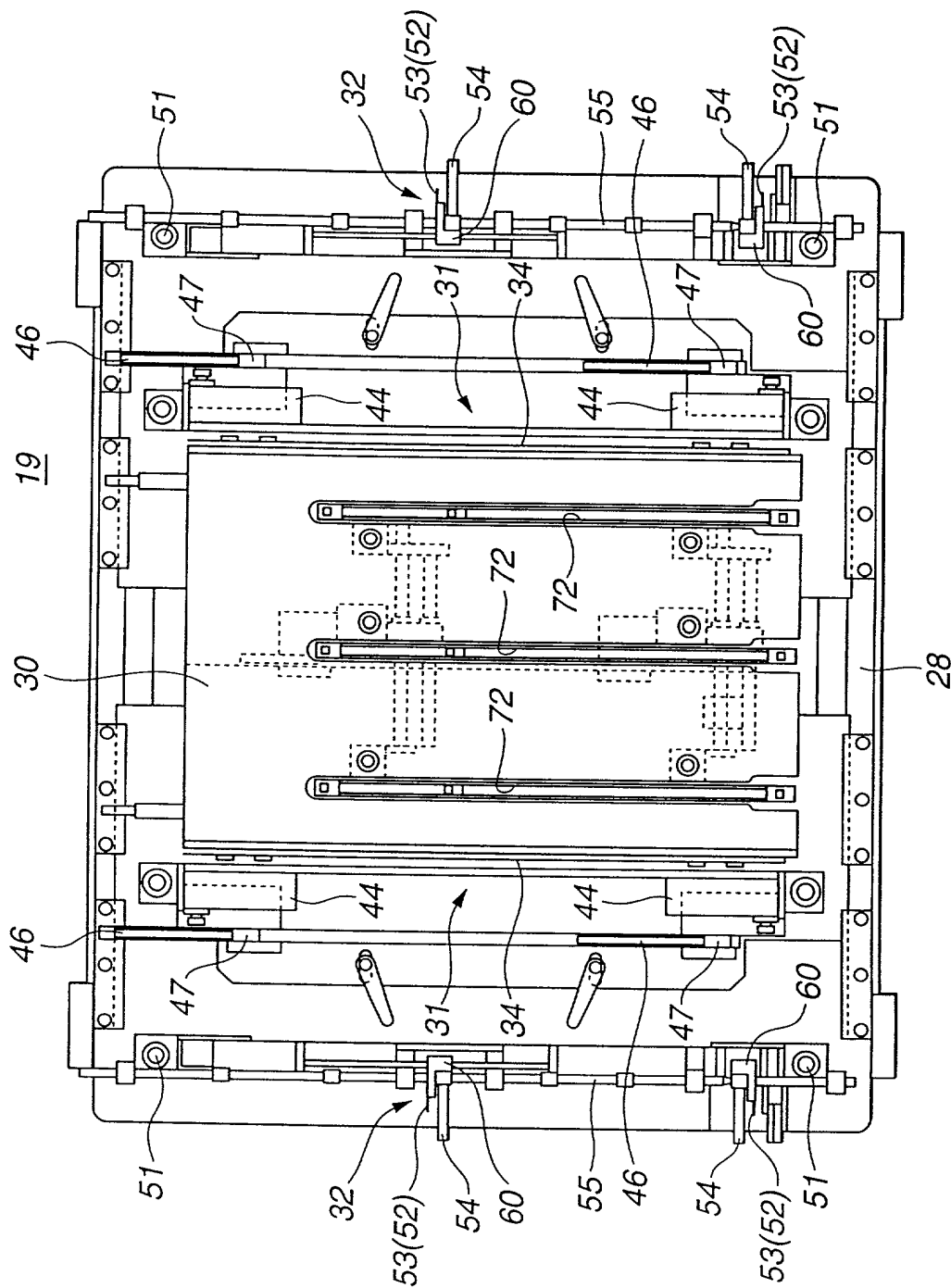


Title: METHOD OF  
MANUFACTURING HEAT  
EXCHANGER

Inventor(s): Hiroshi CHIKUMA et al.

Docket No.: 040679-1425

FIG.10

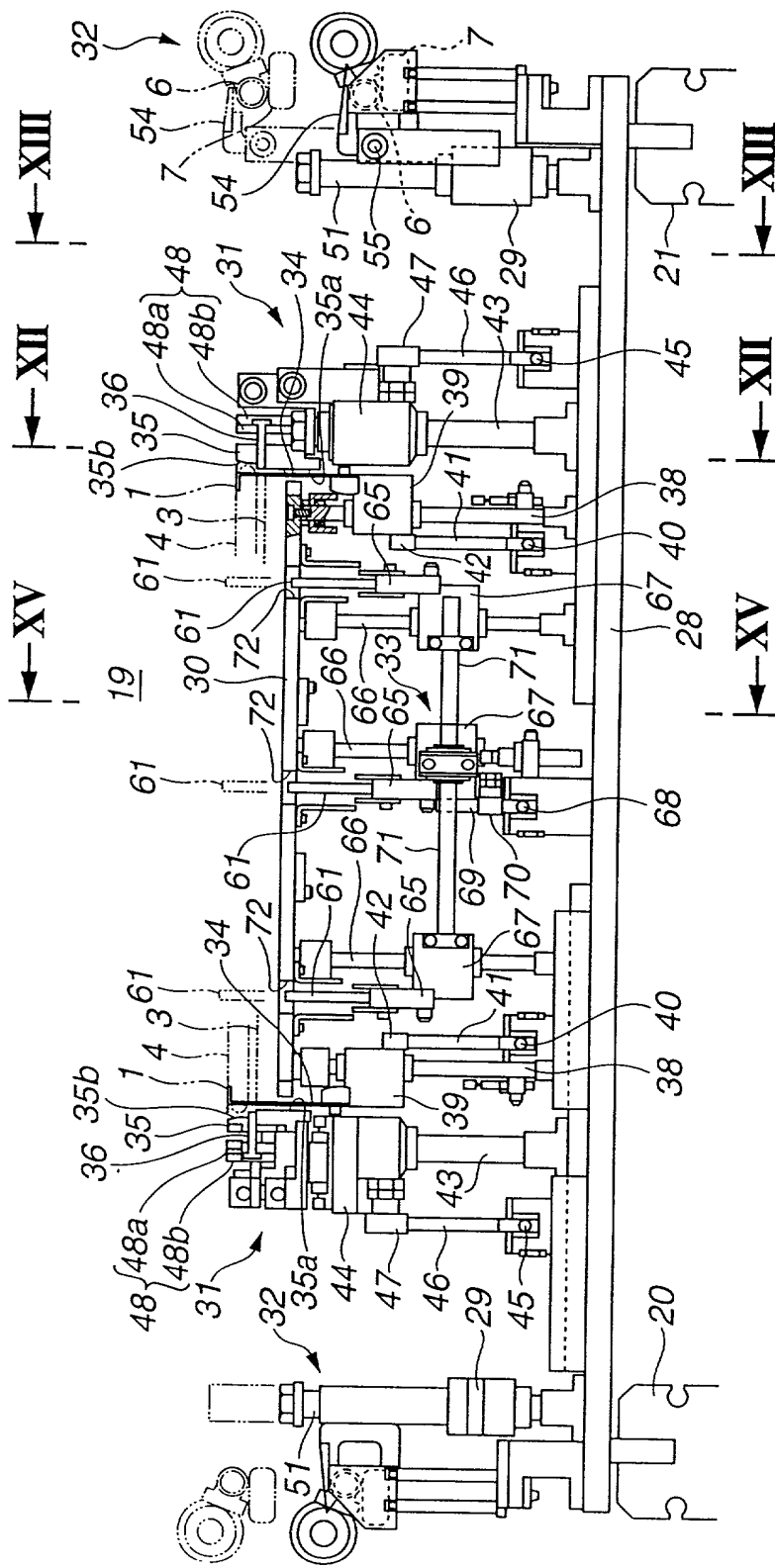


Title: METHOD OF  
MANUFACTURING HEAT  
EXCHANGER

Inventor(s): Hiroshi CHIKUMA et al.

Docket No.: 040679-1425

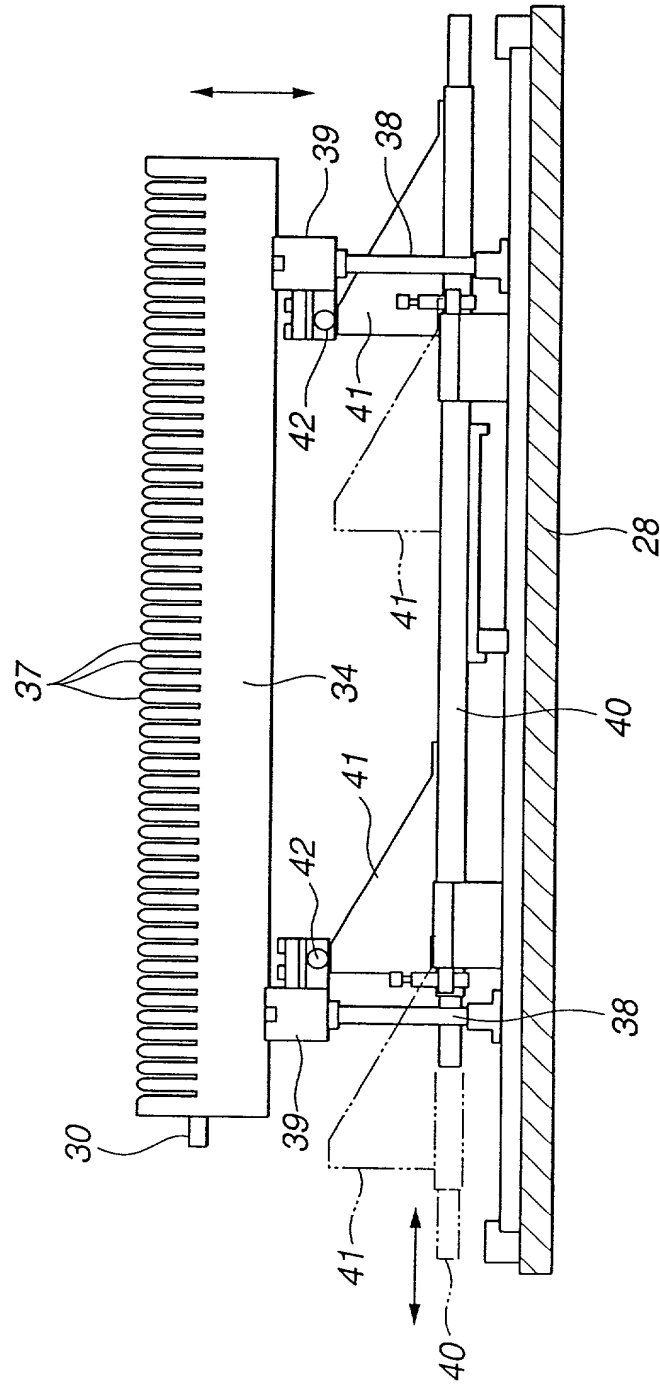
FIG.11



Title: METHOD OF  
MANUFACTURING HEAT  
EXCHANGER

Inventor(s): Hiroshi CHIKUMA et al.  
Docket No.: 040679-1425

FIG.12



Title: METHOD OF  
MANUFACTURING HEAT  
EXCHANGER

Inventor(s): Hiroshi CHIKUMA et al.  
Docket No.: 040679-1425

FIG.13

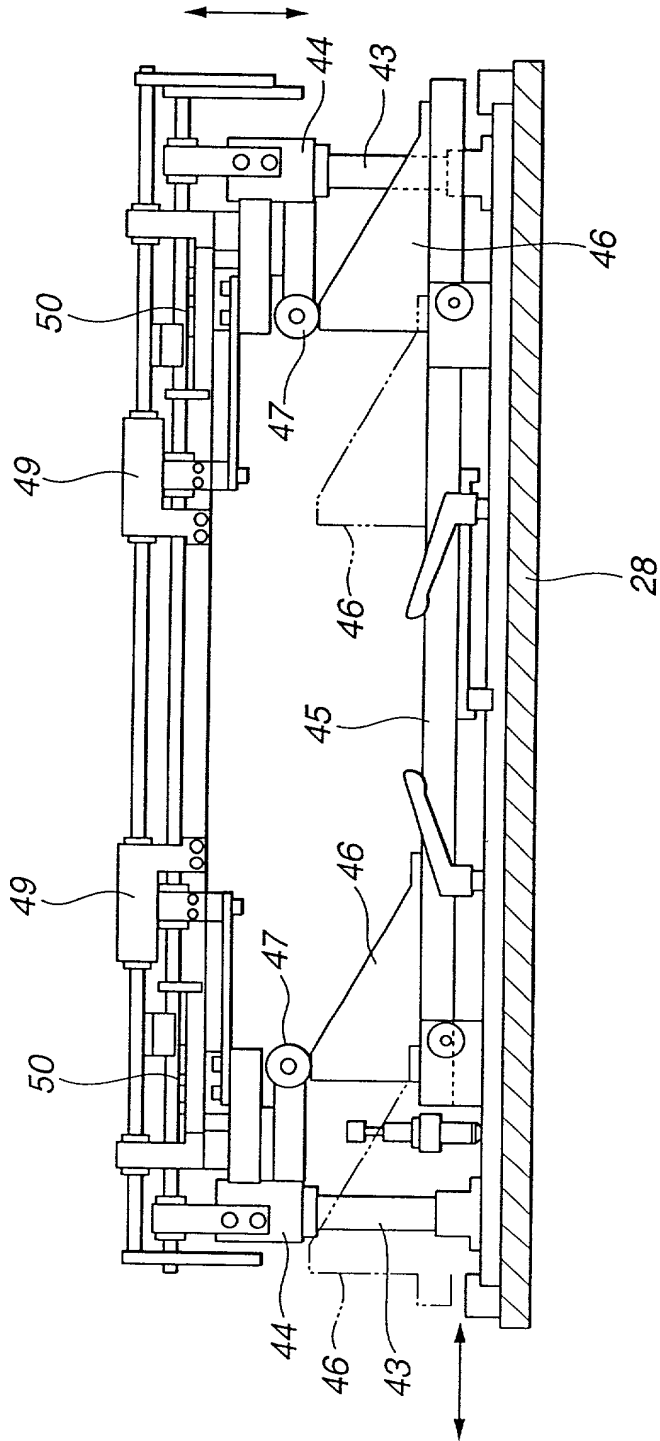


FIG.14A

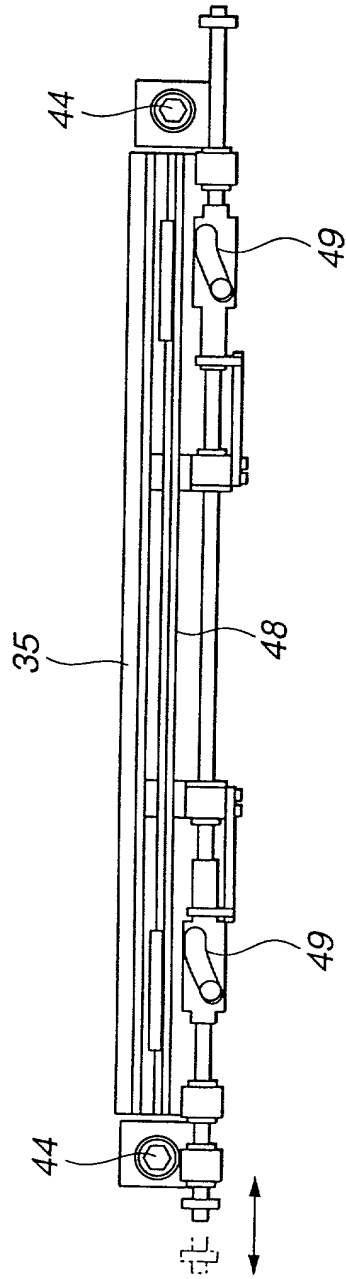
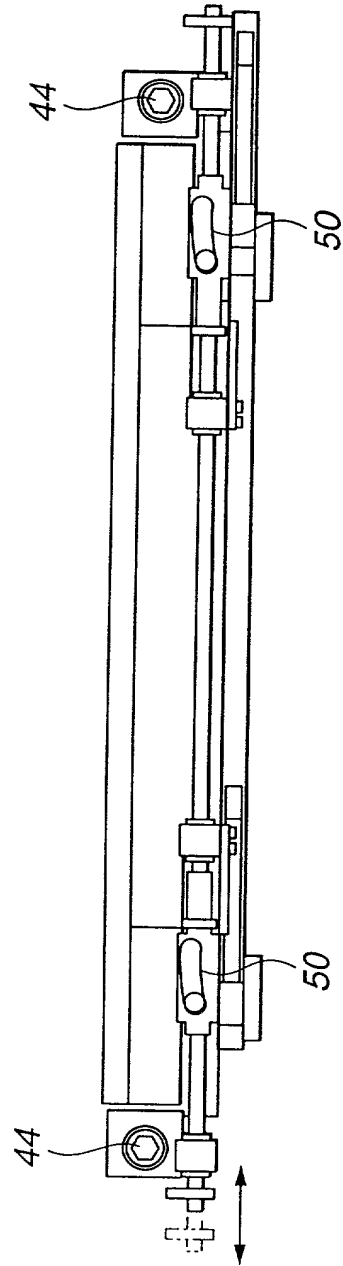
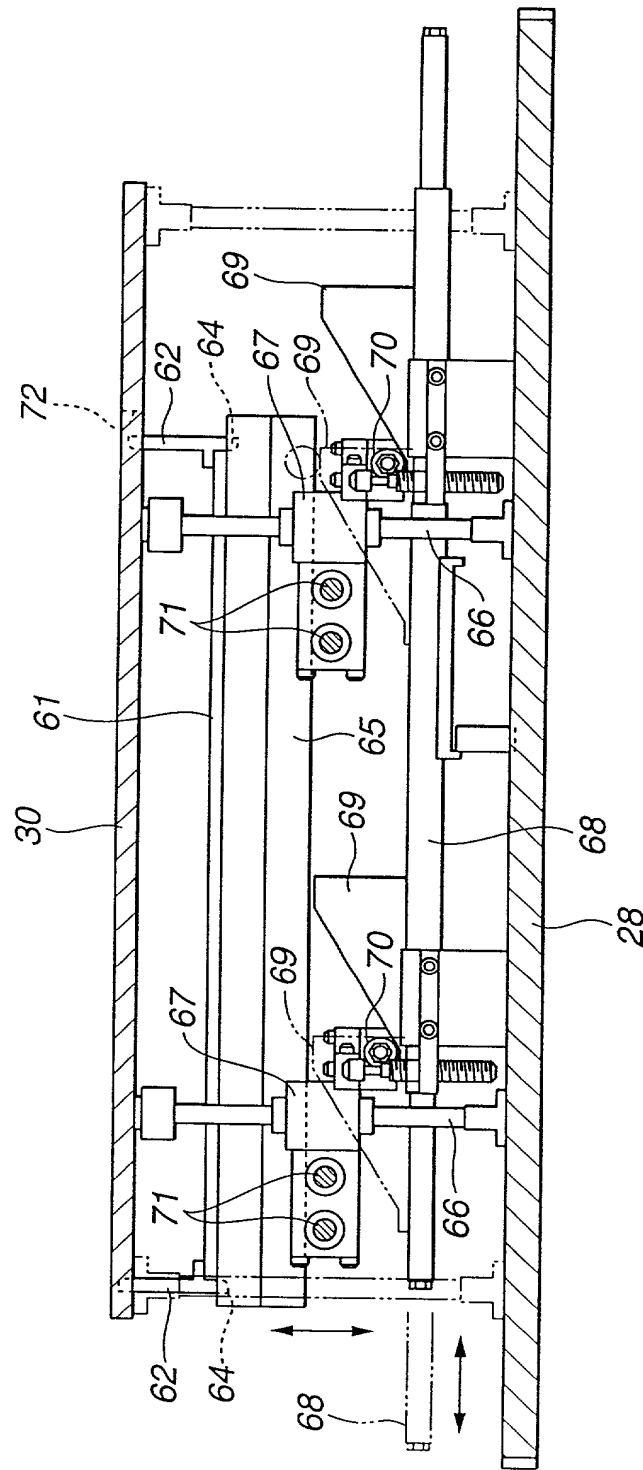


FIG.14B

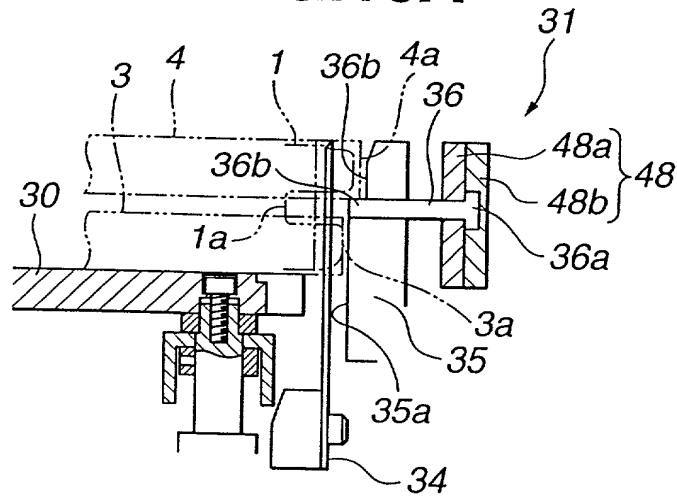


Inventor(s): Hiroshi CHIKUMA et al.  
Docket No.: 040679-1425

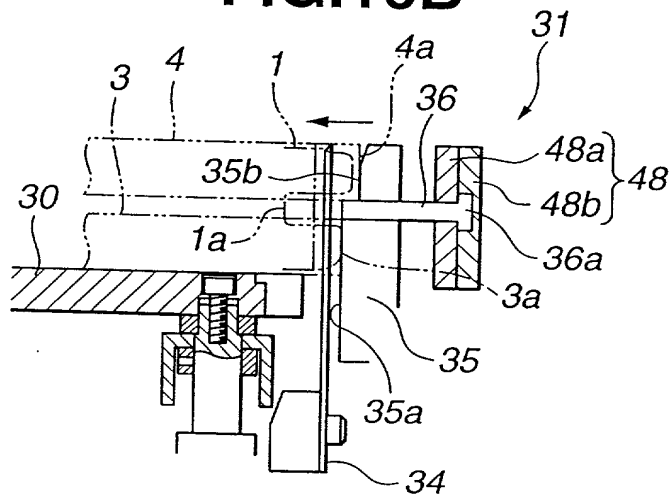
Docket No.: 040679-1425

[illegible]

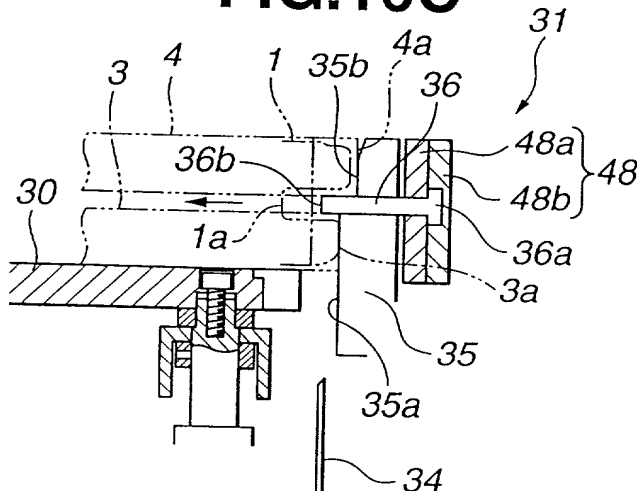
**FIG. 16A**



**FIG. 16B**



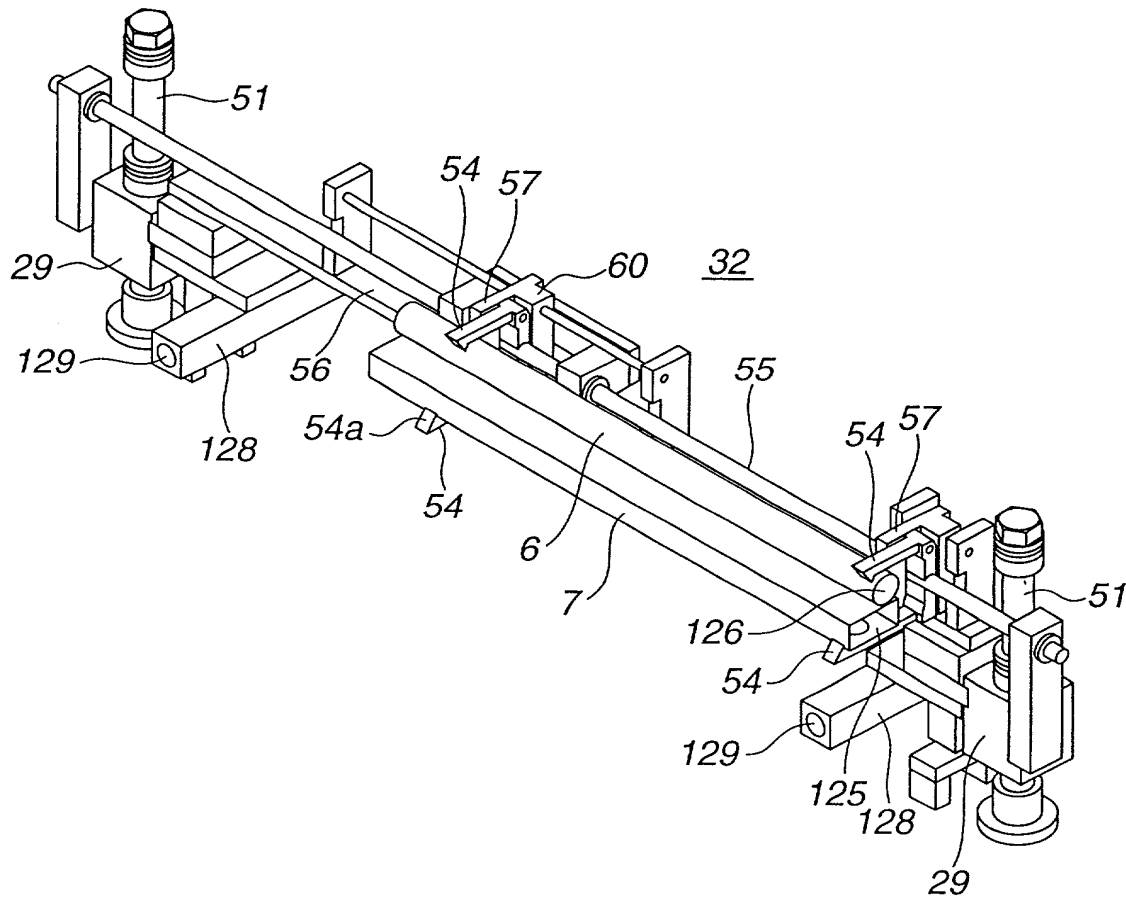
**FIG. 16C**





Inventor(s): Hiroshi CHIKUMA et al.  
Docket No.: 040679-1425

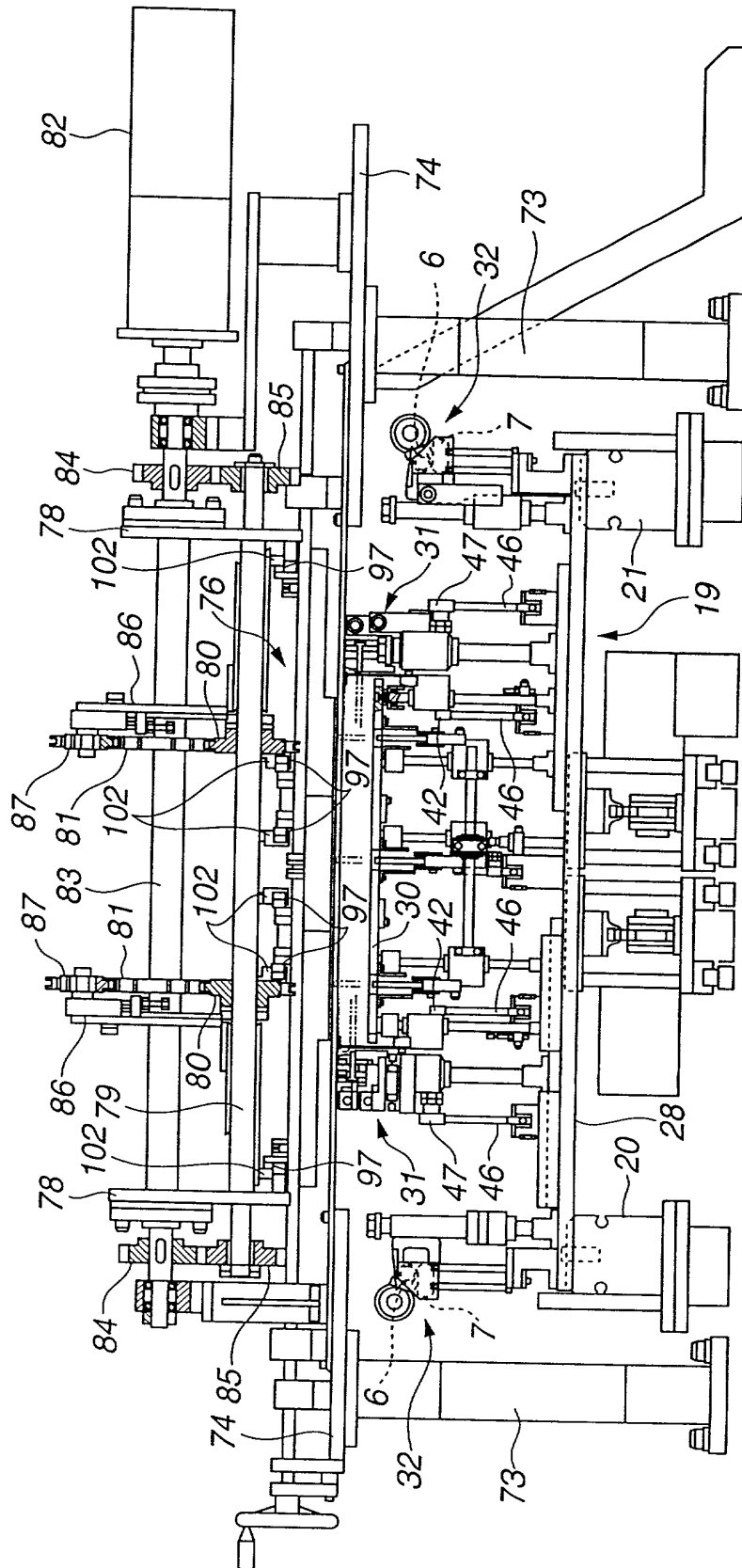
**FIG.18**



Docket No.: 040679-1425

Docket No.: 040679-1425

**FIG. 19**

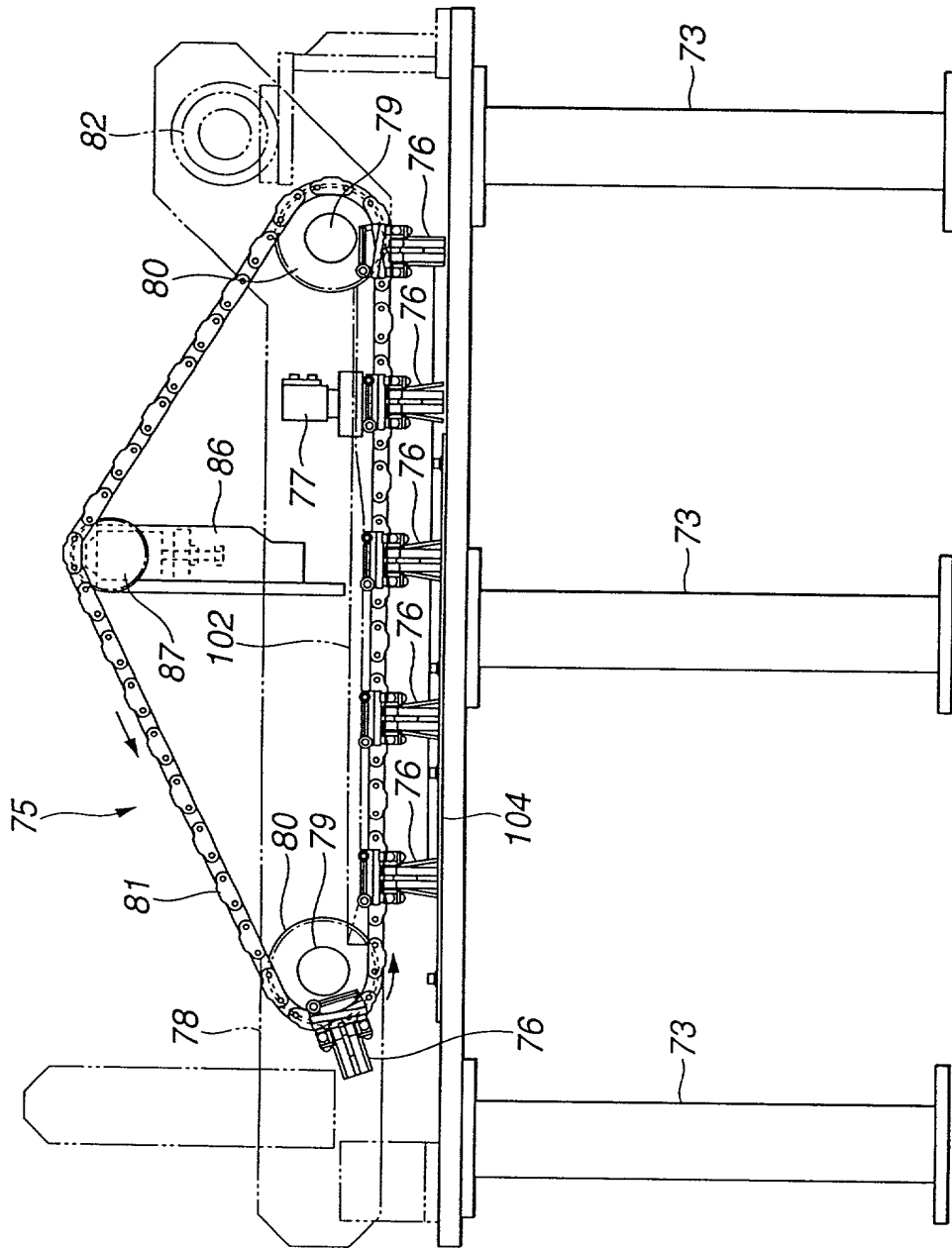


Title: METHOD OF  
MANUFACTURING HEAT  
EXCHANGER

Inventor(s): Hiroshi CHIKUMA et al.

Docket No.: 040679-1425

FIG.20

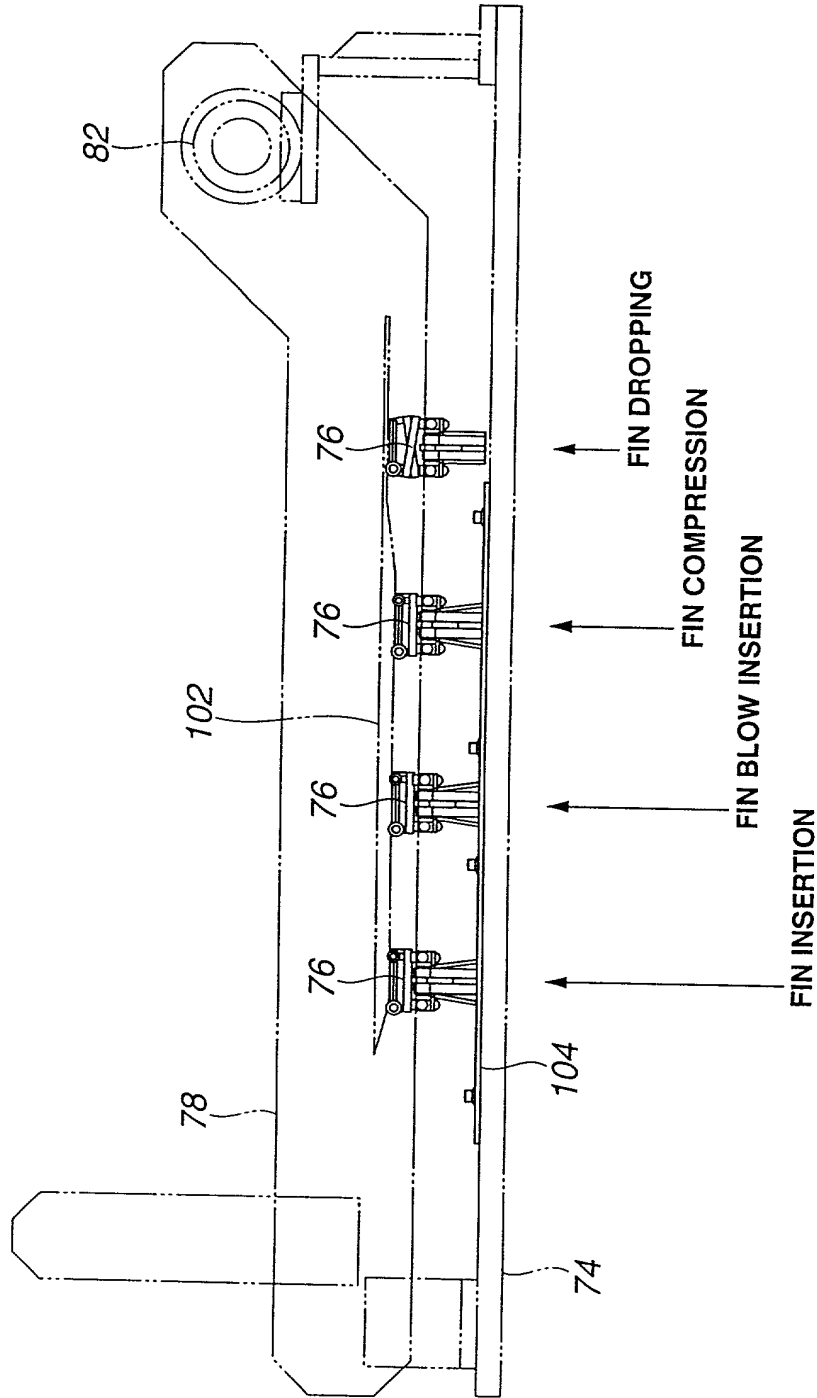


Title: METHOD OF  
MANUFACTURING HEAT  
EXCHANGER

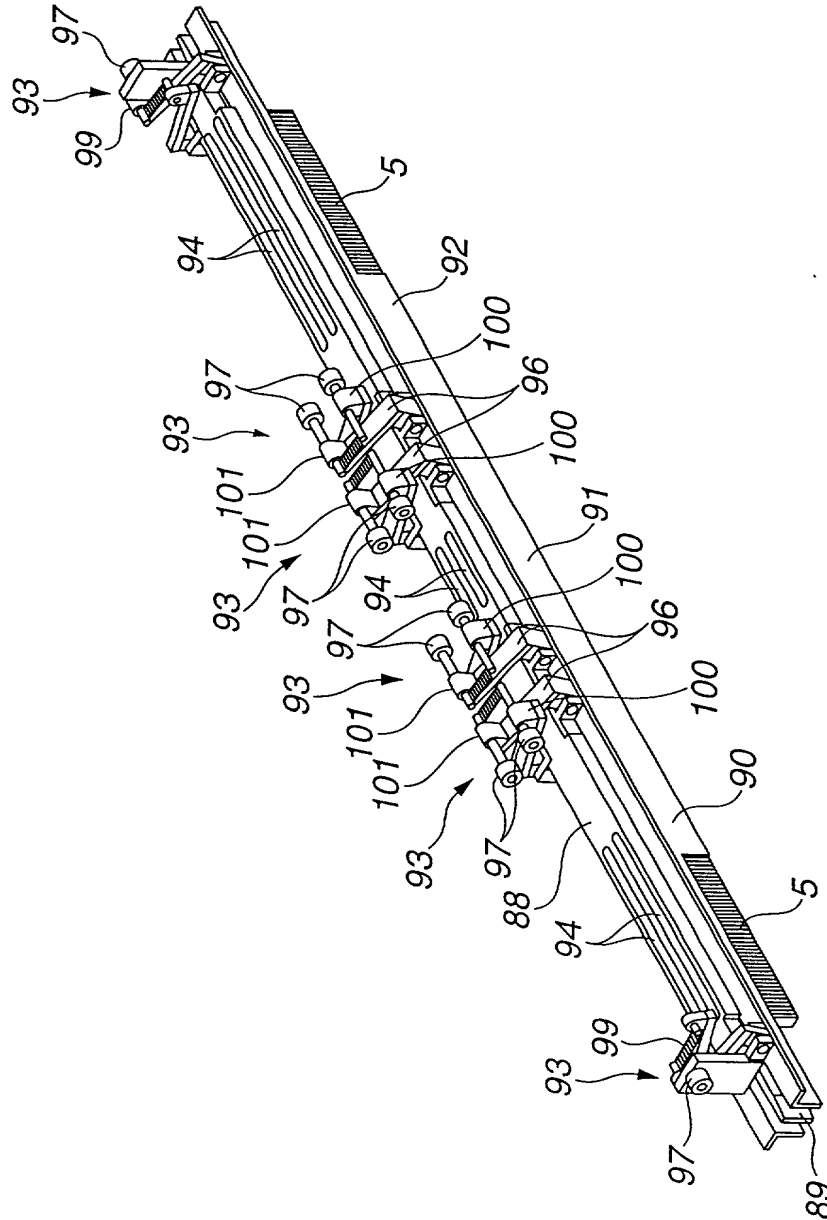
Inventor(s): Hiroshi CHIKUMA et al.

Docket No.: 040679-1425

FIG.21



**FIG. 22**



Title: METHOD OF  
MANUFACTURING HEAT  
EXCHANGER

Inventor(s): Hiroshi CHIKUMA et al.  
Docket No.: 040679-1425

FIG.23A

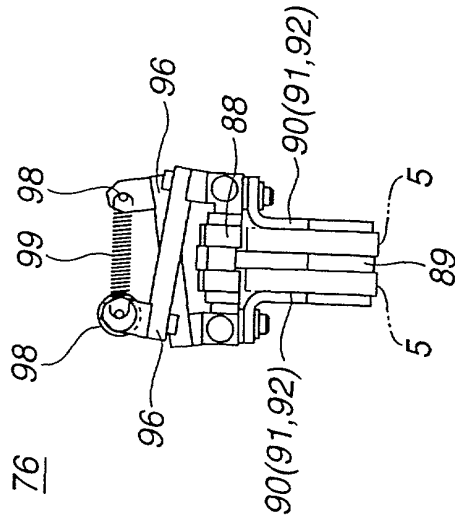
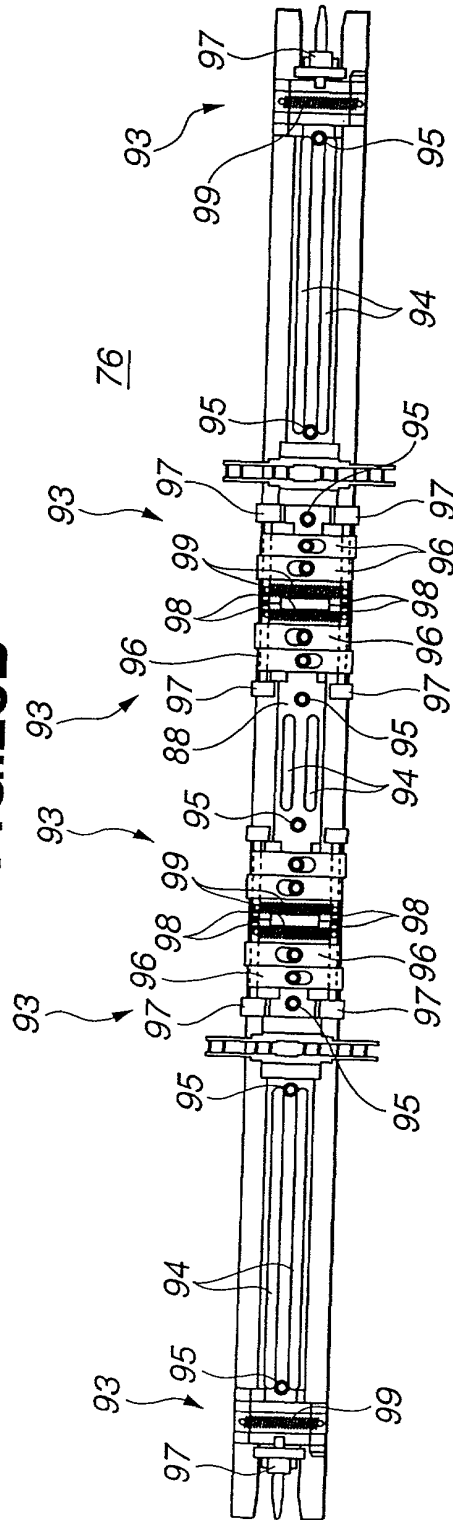


FIG.23B



Title: METHOD OF  
MANUFACTURING HEAT  
EXCHANGER

Inventor(s): Hiroshi CHIKUMA et al.

Docket No.: 040679-1425

FIG.24A

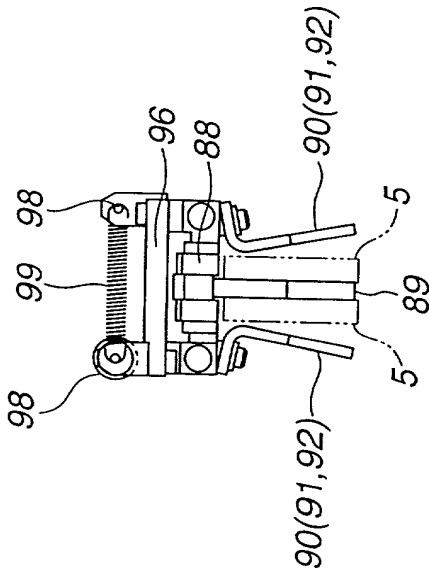
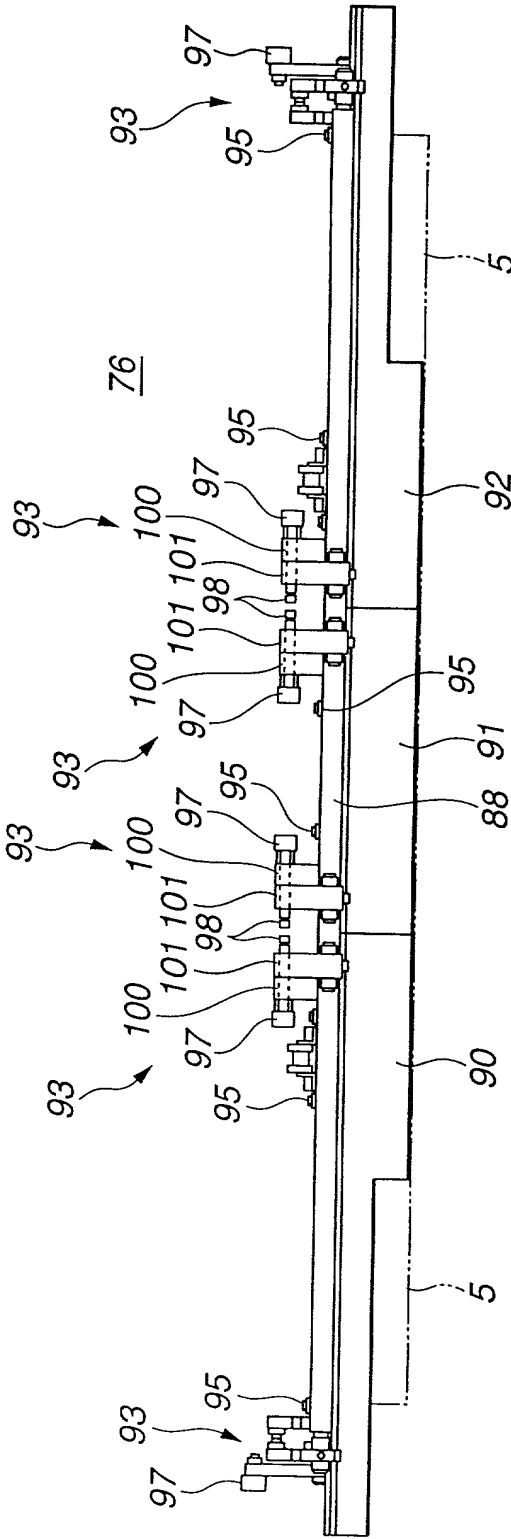
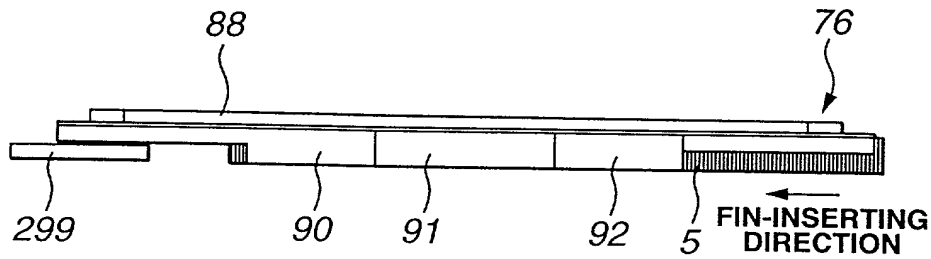


FIG.24B

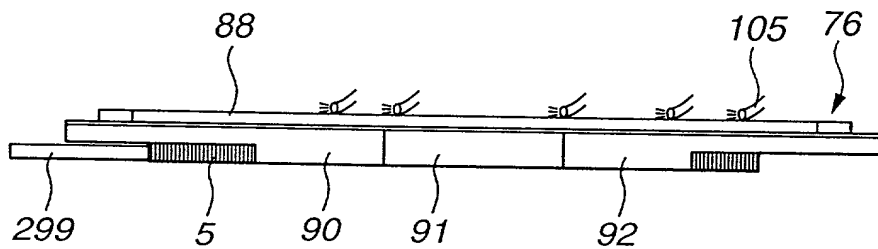




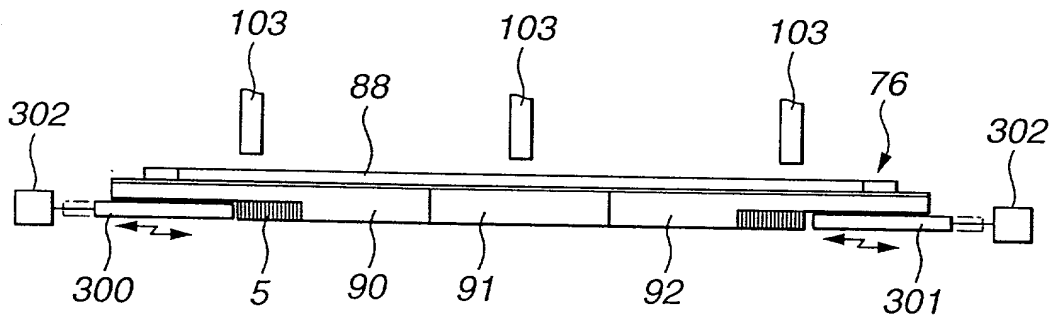
**FIG.25A**



**FIG.25B**



**FIG.25C**



**FIG.25D**

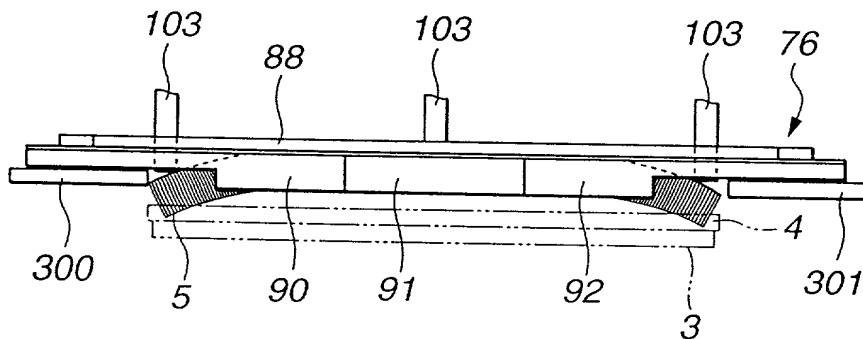
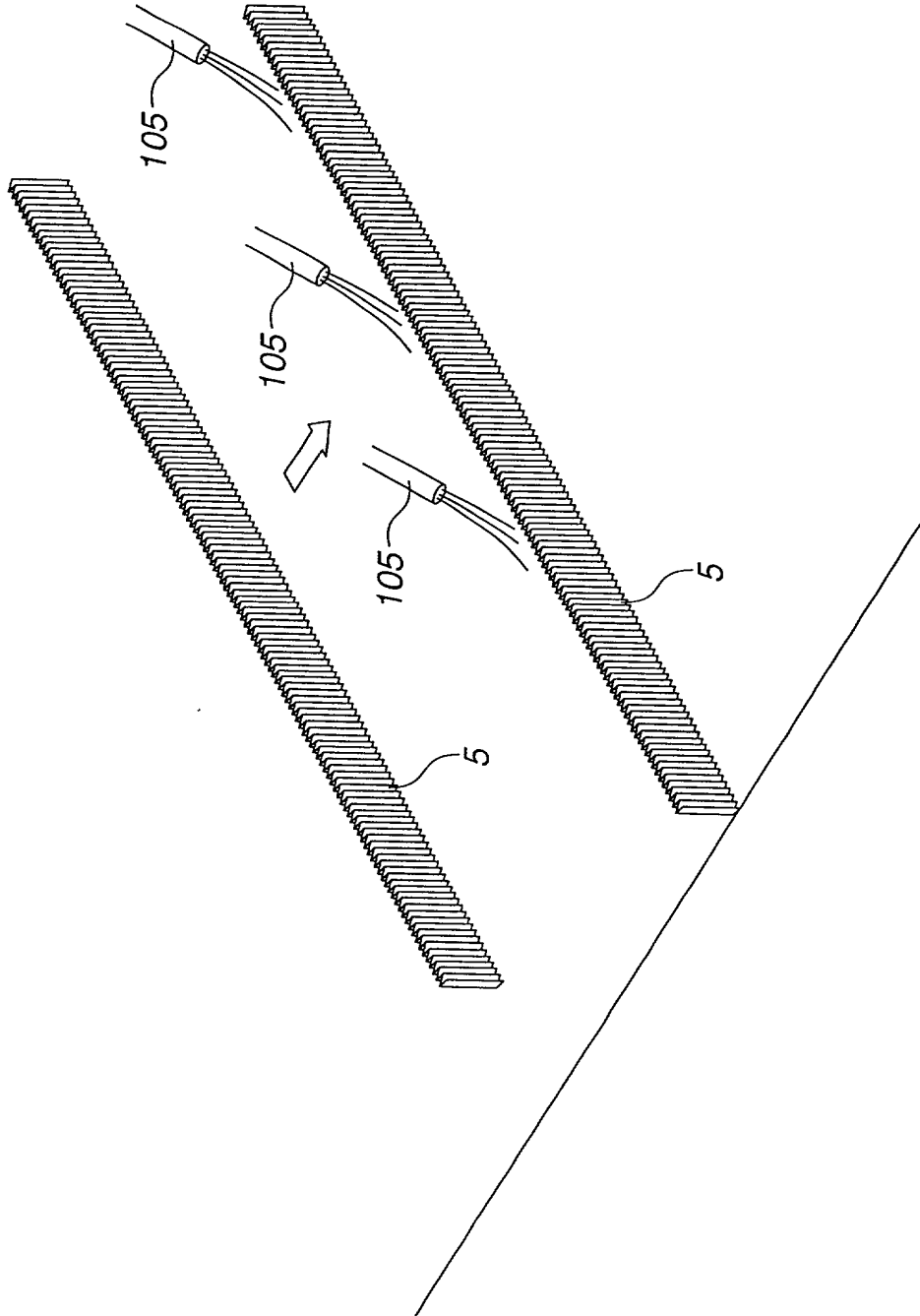
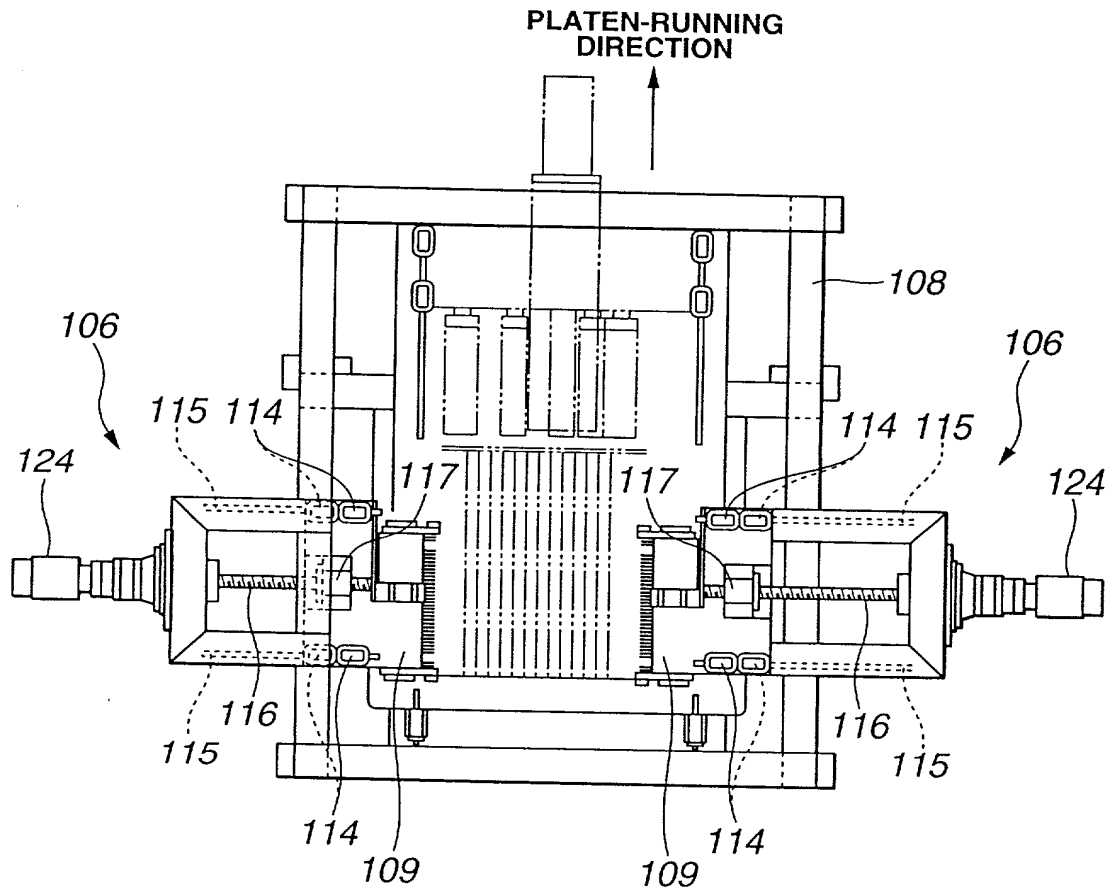


FIG.26



**FIG.27**



**FIG.28**

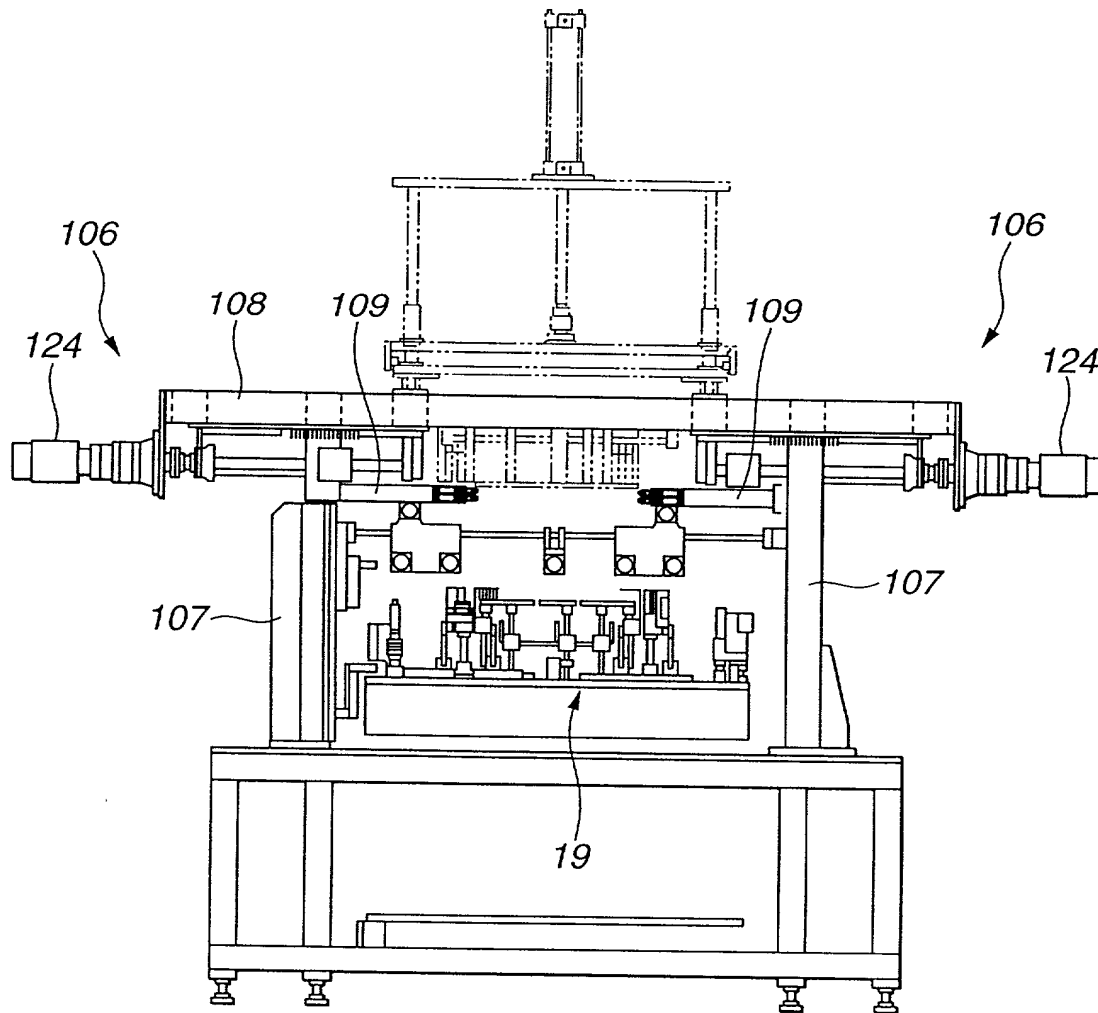


FIG. 28 is a cross-sectional view of a heat exchanger manufacturing machine. The machine includes a base 19, a central processing unit 107, and a horizontal assembly 108. The horizontal assembly 108 includes two main horizontal shafts 106, each terminating in a flange 124. Between these shafts are two vertical components 109. The entire assembly is supported by a frame 107. A vertical rod with a handle is positioned at the top center. The drawing uses solid lines for visible parts and dashed lines for hidden internal components.

FIG.29A

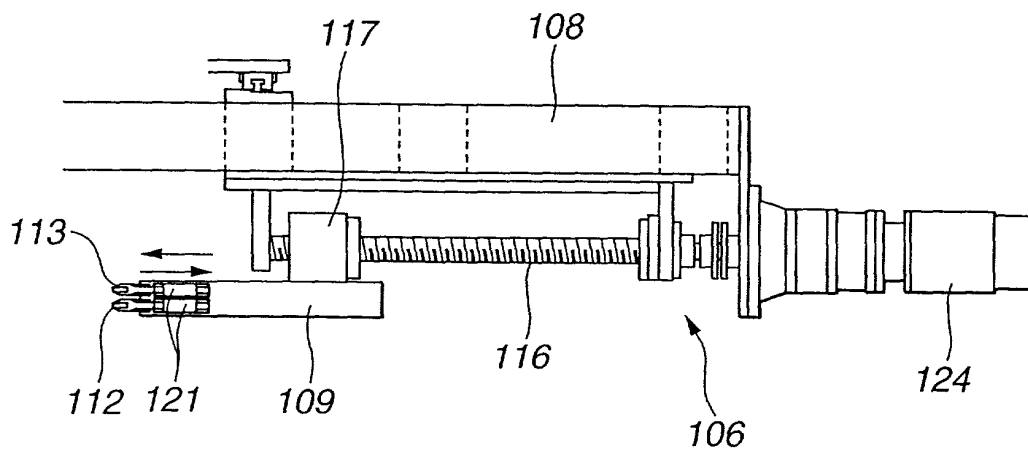
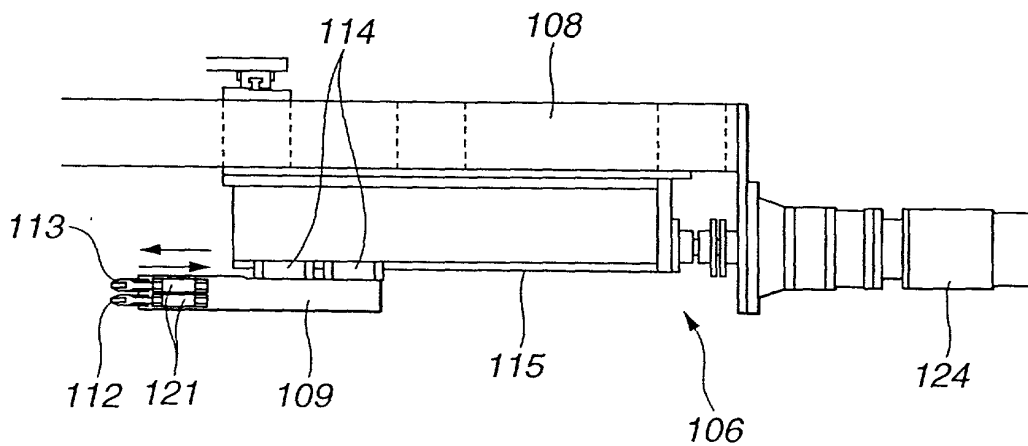


FIG.29B

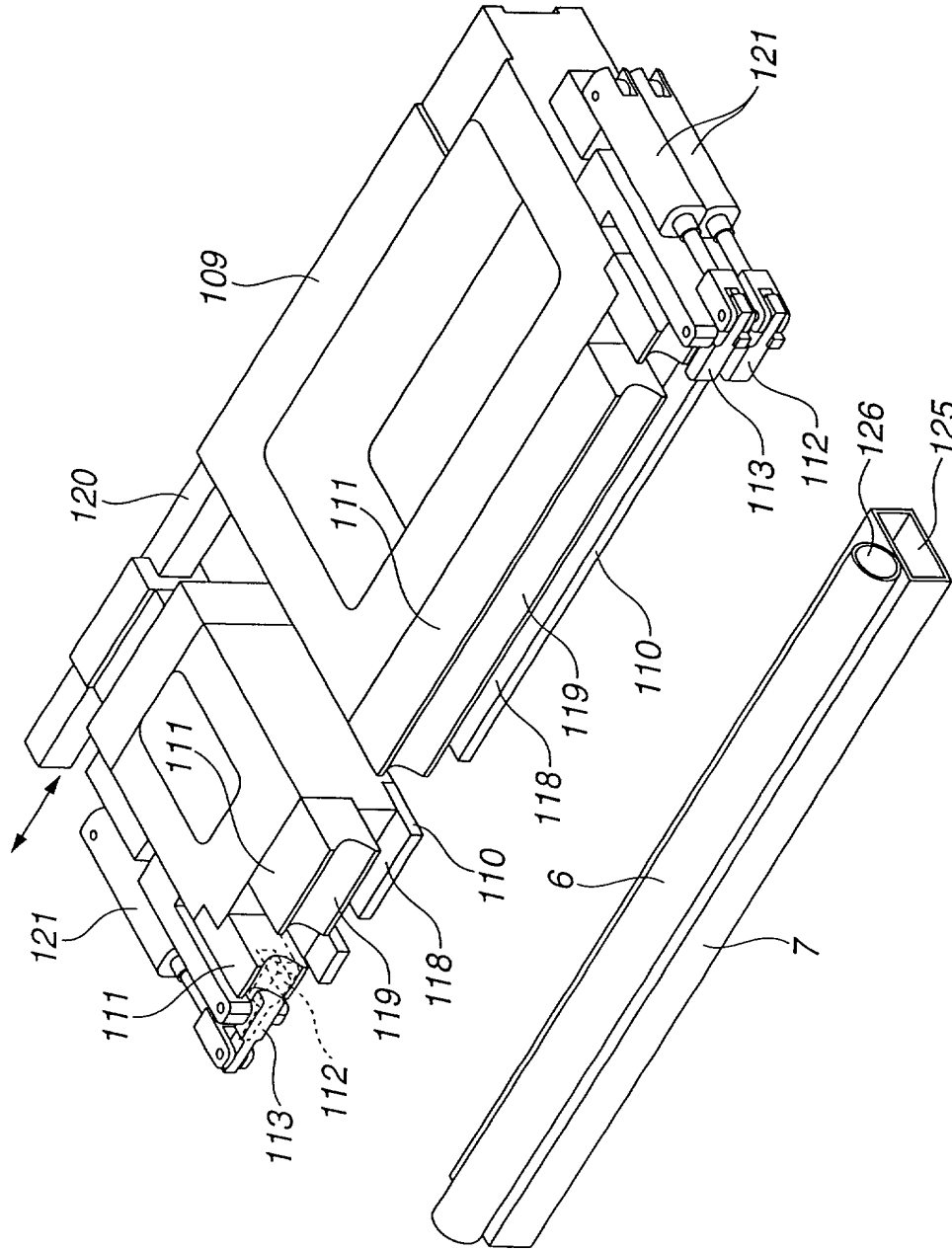


Title: METHOD OF  
MANUFACTURING HEAT  
EXCHANGER

Inventor(s): Hiroshi CHIKUMA et al.

Docket No.: 040679-1425

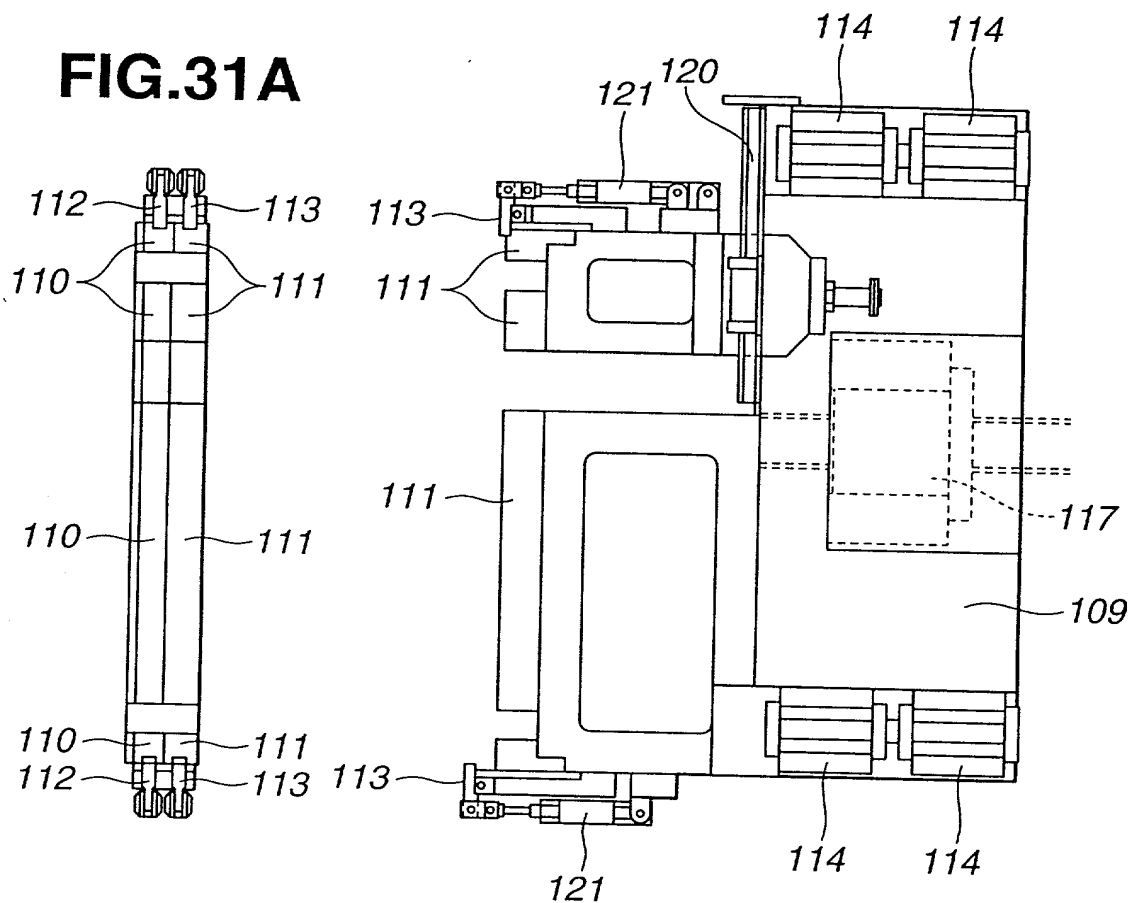
FIG.30



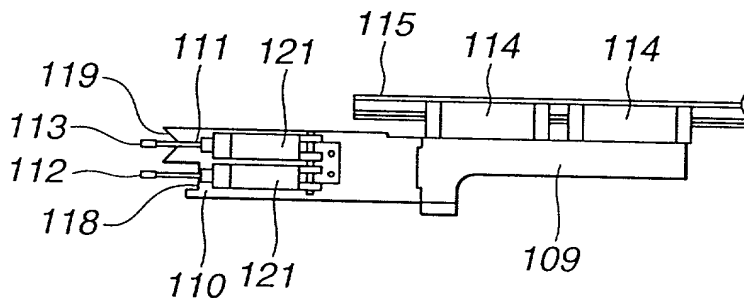
Title: METHOD OF  
MANUFACTURING HEAT  
EXCHANGER

Inventor(s): Hiroshi CHIKUMA et al.  
Docket No.: 040679-1425

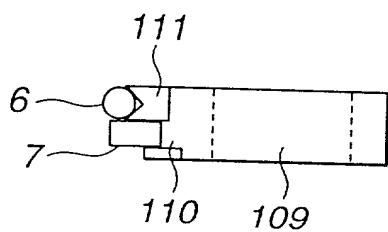
**FIG.31B**



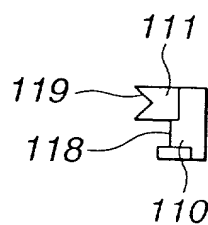
**FIG.31C**



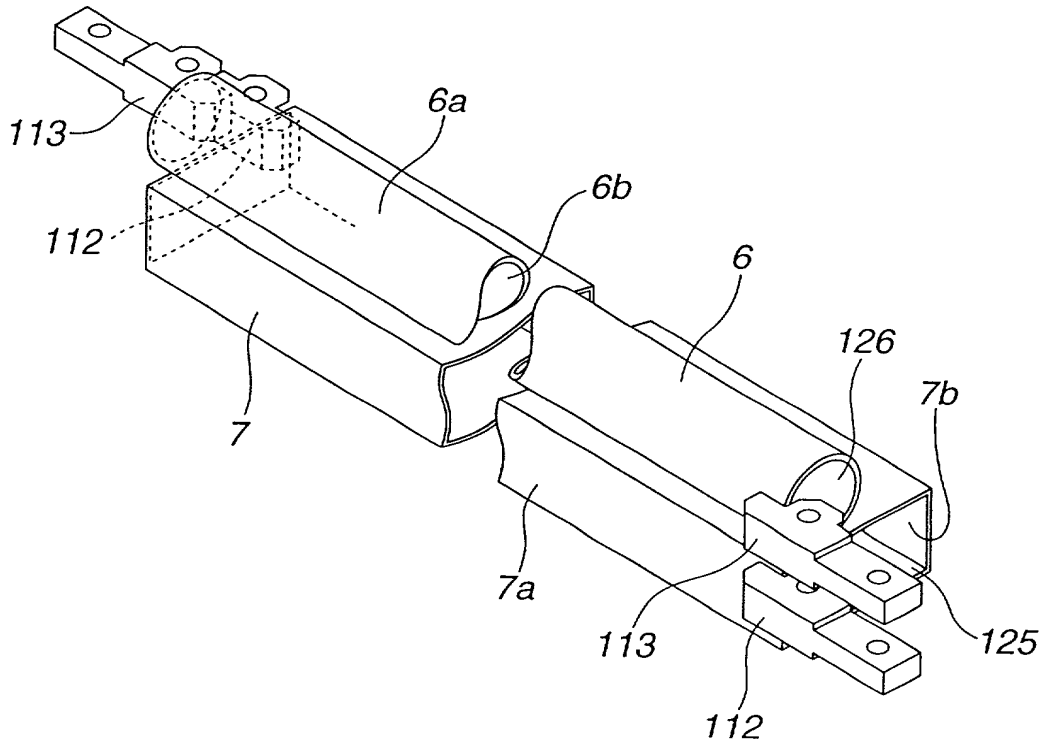
**FIG.32A**



**FIG.32B**

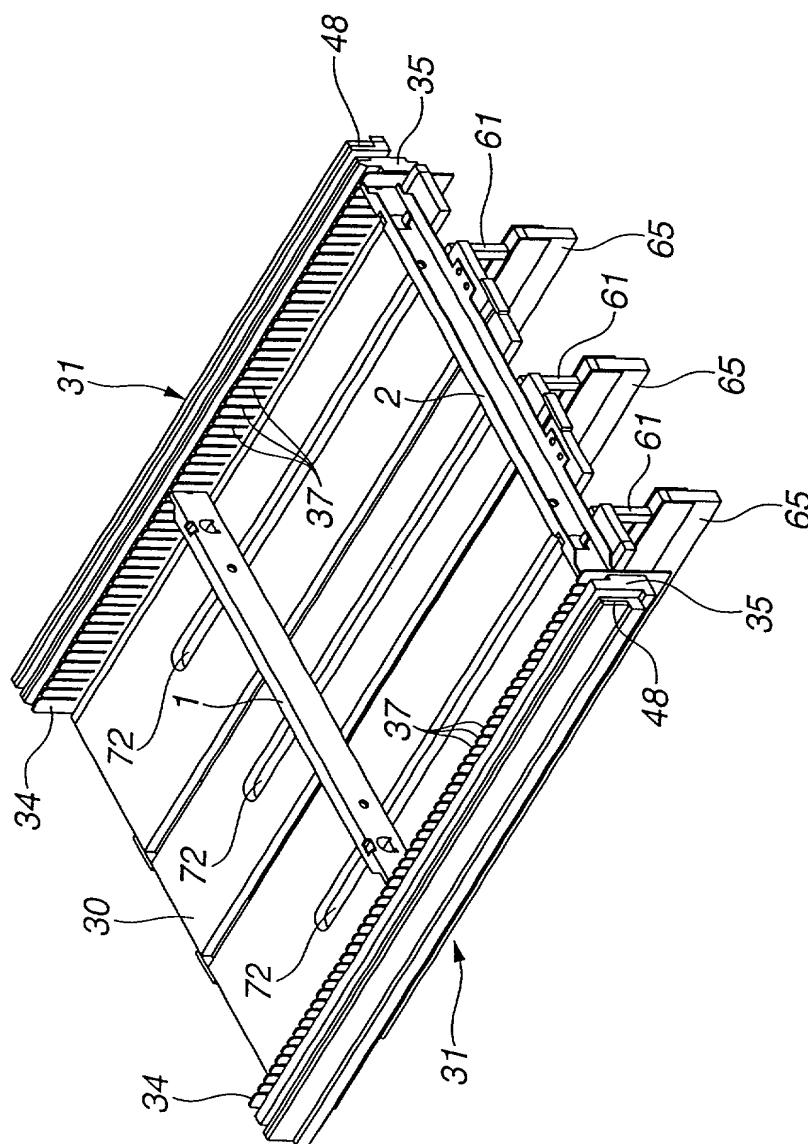


**FIG.33**





# FIG. 34

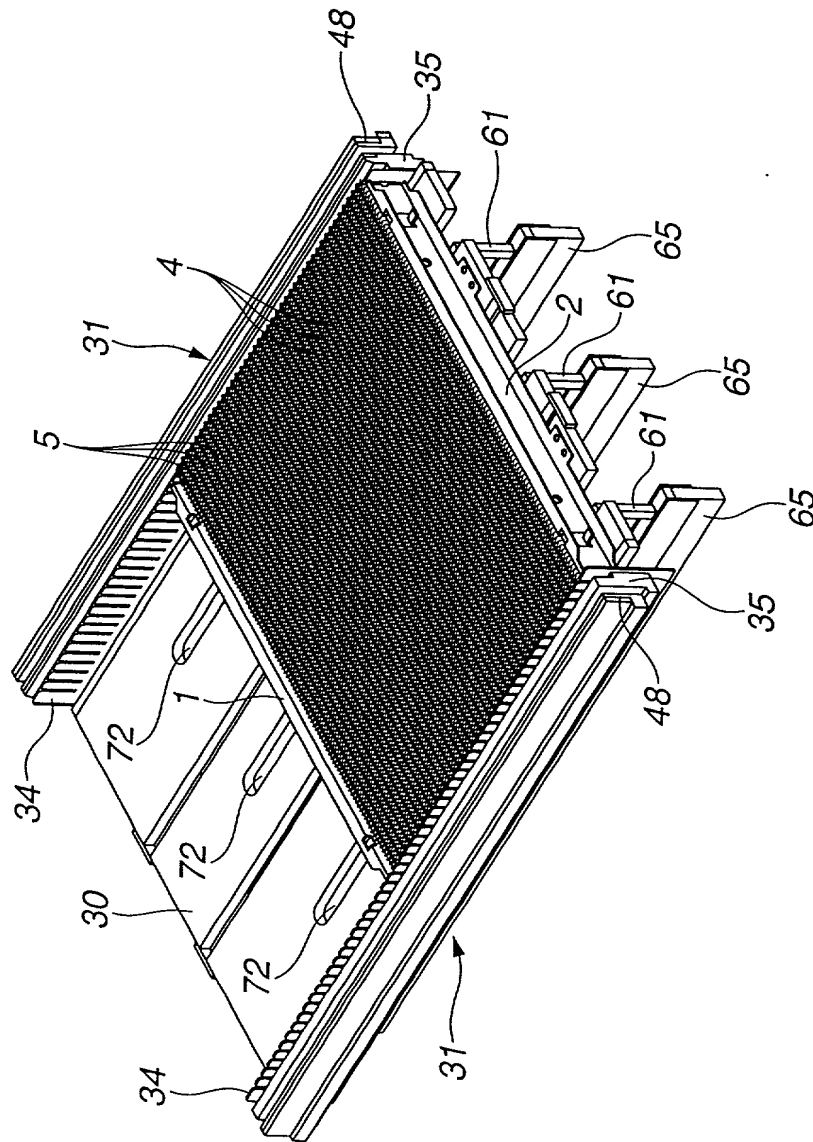


Title: METHOD OF  
MANUFACTURING HEAT  
EXCHANGER

Inventor(s): Hiroshi CHIKUMA et al.

Docket No.: 040679-1425

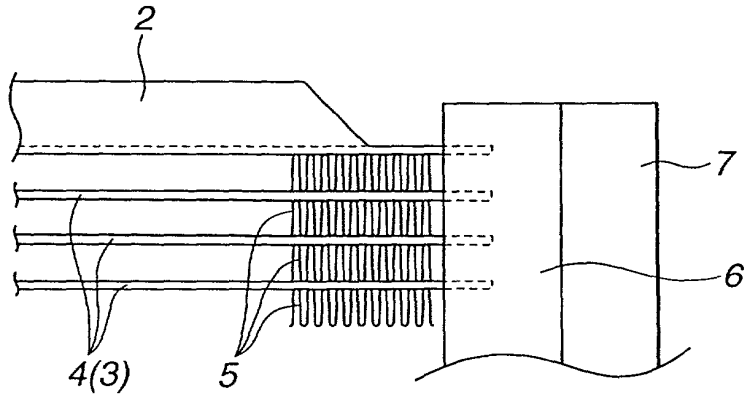
FIG.35



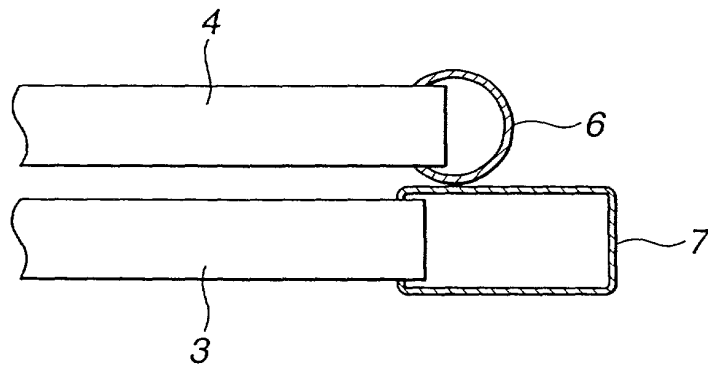
Title: METHOD OF  
MANUFACTURING HEAT  
EXCHANGER

Inventor(s): Hiroshi CHIKUMA et al.  
Docket No.: 040679-1425

**FIG.36A**



**FIG.36B**



**FIG.36C**

